ViewStation® EX
User Guide

June 2003 Edition
3725-21086-002

Trademark Information

Polycom®, the Polycom logo design, and ViewStation® are registered trademarks of Polycom Inc. ARENA™, Global Management System™, PathNavigator™, Polycom OneDial™, and Visual Concert™ are trademarks of Polycom, Inc. in the United States and various other countries.

Internet Explorer™, NetMeeting®, Windows®, and Windows NT® are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

Intel®, Pentium®, and Celeron® are registered trademarks and TeamStation™ is a trademark of Intel Corporation.

Adobe® Acrobat® is a registered trademark of Adobe Systems Incorporated.

ADTRAN® is a registered trademark of ADTRAN, Inc.

QuickTime™ is a trademark of Apple Computer, Inc.

Netscape® Navigator® is a registered trademark of Netscape Communications Corporation.

IP/TV® is a registered trademark of Cisco Systems, Inc.

All other trademarks are the property of their respective owners. Every effort has been made to ensure that the information in this manual is accurate. Polycom, Inc. is not responsible for printing or clerical errors. Information in this document is subject to change without notice.

Patent Information

The accompanying product is protected by one or more U.S. and foreign patents and patents pending held by Polycom, Inc.

© 2003 Polycom, Inc. All rights reserved.

Polycom Inc.
4750 Willow Road
Pleasanton, CA 94588-2708
USA

No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without the express written permission of Polycom, Inc. Under the law, reproducing includes translating into another language or format.

As between the parties, Polycom, Inc. retains title to, and ownership of, all proprietary rights with respect to the software contained within its products. The software is protected by United States copyright laws and international treaty provision. Therefore, you must treat the software like any other copyrighted material (e.g. a book or sound recording).

Every effort has been made to ensure that the information in this manual is accurate. Polycom, Inc. is not responsible for printing or clerical errors. Information in this document is subject to change without notice.

Contents

Chapter 1 - Welcome to the ViewStation EX

Feature Highlights 18
What is in the Box? 20
ViewStation EX 20
Network Interface Module 20
Additional Information 21
Remote Control 21
Microphone Pod 21
Power Supply 22
Help and Technical Support 23
Using Help 23
Help Topics 24
Troubleshooting 24
General 24
Audio 26
Video 27
How to Contact Technical Support 27
By Phone 27
By Internet 28

Chapter 2 - Installing the ViewStation EX

What you Need to Install the ViewStation EX System 30
Television Monitors 30
Network Interfaces 30
Ethernet 30
ISDN 30
Power Source 31
Integrated Cameras 32
Sony EVI-10 Camera 32
NT-1 Device 32
Required Information 33
Equipment Installation 33
Setting up the ViewStation EX 34
ISDN Network Interface Modules 35
Setting up the V.35/RS-449/RS-530 Network Interface 35
Setting up the Quad BRI Network Interface 38

© Polycom, Inc. 2003

Optional Equipment 41
Second Monitor 41
VCR 41
Document Camera 42
Visual Concert DC 42
Visual Concert FX 42
ShowStation IP 43
Upgrading Software 45
Upgrading Software over IP 45
Upgrading Software over ISDN (H.320) 47
Updating System Software From a PC on a LAN 48
Updating System Software Directly From a PC 49
Updating a System Already Loaded With the Current System Software 52
Updating System Software Remotely 54
Upgrading the System for Multipoint Calls 55

Chapter 3 - Initial System Setup

First System Screens 59
Selecting the Language 59
Selecting Menu Items with the Remote Control 60
Setting up System Name and Country 61
System Name 61
Country 62
Setting your Call Preferences 62
OneDial Preferences 63
Initial Setup for IP (H.323) Calls 64
Setup for IP (H.323) Calls 64
Setting up a Gatekeeper 65
Initial Setup for ISDN (H.320) Calls 68
Setup for the V.35/RS-449/RS-530 Network Interface 68
Setting Video Network Options 69
Selecting Dialing Speeds 70
Setting Broadcast Mode Options 70
Setting Advanced Dialing Preferences 71
Entering V.35/RS-449/RS-530 Video Numbers 73
Setup for the Quad BRI Network Interface 74
Entering ISDN Video Numbers 74
Entering Service Profile Ids Manually 75
Selecting the ISDN Switch Protocol 76
Final Out-of-Box System Setup Screens 77
Configuring for Outside Line Calls 77
Adding a Telephone Number 78

Setting the Administrator and Meeting Passwords....78
Setting up the Firewall....79
Verifying Initial Setup....80
Placing a Test Call....80
Checking the Network Connectivity Indicators on the Main Screen....80
Network Line Check Indicators....81
ISDN Line Check Indicators....81
Gatekeeper Status Indicators....82

Chapter 4 - Advanced Configuration for your Network Environment

Configuration of the LAN Settings....85
Configuring LAN and Intranet Settings....85
Selecting Advanced LAN Settings....89
Configuring Firewall and LAN Connection Settings....91
Configuration for IP (H.323) Calls....93
Configuring H.323 Name and Extension....94
Selecting Dialing Speeds....95
Configuring the Gateway and Gatekeeper....96
Overview....96
About Polycom OneDial....97
Setting the Gateway and Gatekeeper....98
Configuring the Gateway Number....100
Selecting your Gateway Prefix and Suffix....101
Configuration for ISDN (H.320) Calls....103
Advanced V.35/RS-449/RS-530 Network Interface Configuration....103
Configuring the V.35/RS-449/RS-530 Serial Interface Control Signals104
Setting up Satellite (H.331) Broadcast Mode....105
Selecting Dialing Speeds....106
Setting the Calling Profile....108
Enabling Crypto Resync....110
Advanced Quad BRI Network Interface Configuration....111
Entering ISDN Video Numbers....112
Entering or Detecting Service Profile Ids....113
Setting Audio Quality Preference....114
Setting Channel Dialing Preferences....115
Selecting Dialing Speeds....116
Modifying ISDN Video Network Information....117
Configuration of the Global Address Book....119
Overview....119
About the Global Address Book....120
Configuring Settings for the Global Address Book Server....120

© Polycom, Inc. 2003

Setting the Global Address Book Preferences 121
Selecting your Preferred Alias 123
Selecting the Call Type Order for OneDial Address Book Entries 124
Entering the Private Network Number 125
Establishing Dialing Rules 125
Dialing Rules 1 125
Dialing Rules 2 128
Configuration for the Global Management System 130
Overview 130
About Global Management System 130
Setting Global Management Preferences 132
Accessing Global Management Server URLs 133
Adding Global Management Technical Support Contact Information 134
Configuring Streaming Preferences 136
Configuring SNMP Preferences 138
Configuring Quality of Service 140

Chapter 5 - Using the ViewStation EX

Remote Control 144
Video Calls 148
Placing a Call Manually 148
Using One Number 148
Using Two Numbers 151
Placing a Call from the Address Book 153
Placing a Speed-Dial Call 154
Placing a Call from the Web Interface 155
Placing a Call Using the Application Programming Interface 155
Answering a Video Call Manually 155
Answering a Video Call Automatically 156
Setting the System to Do Not Disturb 156
Ending a Video Call 157
Analog Telephone Calls 158
Placing a Telephone Call 158
Adding a Telephone Call to a Video Call 159
Disconnecting a Telephone Call 159
Adding a Video Call to a Telephone Call 160
Address Book 161
Adding an Entry to the Address Book 162
Editing an Existing Entry in the Address Book 163
Deleting Entries in the Address Book 164
Transferring the Address Book 164
Using the Global Address Book 165

Creating Multipoint Address Book Entries 166
Cameras and Sound 167
Controlling Cameras 167
Selecting a Near-Site Camera 167
Selecting a Far-Site Camera 168
Controlling the Near-Site Camera 168
Controlling the Far-Site Camera 169
Adjusting Camera Settings 170
Setting Camera Presets 170
Enabling Automatic Voice Tracking 171
Enabling Automatic Tracking to Camera Presets 172
Controlling Sound 173
Setting the Volume 173
Using the Mute Button 173
Controlling Sound Effects Volume 174
Snapshots 175
Sending Snapshots 175
Snapshot Timeout 175
Picture-In-Picture (PIP) 177
Graphics Cursor 178
General Information 178
Using the Graphics Cursor 179

Chapter 6 - Using Advanced System Features

Multipoint Calls (Optional) 182
Before you Begin 183
Multipoint Dialing Speed Table 183
Mixed Protocol Dialing Speed Table 183
Multipoint Downspeeding 184
Downspeeding/Resynchronization Compatibility 185
Multipoint Calls and Firewall Information 186
Placing Multipoint Video Calls 186
Using the Manual Dialer (Video Phone) 187
Using an Address Book Meeting Entry 189
Using the Address Book 191
Using the Manual Dialer and the Address Book 191
Mixed Protocol Dialing 192
Different Ways to Place a Mixed Protocol Call 192
Additional Information 193
Multipoint Viewing Modes 194
Mode Description 195
Switching Modes 197

© Polycom, Inc. 2003

Multipoint Conference Password 197
Setting Up the Meeting Password 198
Using the Meeting Password 198
MCU Meeting Password Protection in Multipoint Dial-In Calls 199
Multipoint Cascading Capabilities 201
Chair Control 202
General Information 202
Actions Available to All Sites 203
Actions Only Available to the Chair Controller 204
Dial-In Calling (Optional) 205
Dial-In Calling Scenarios 205
With an Existing Point-to-Point Call 205
With no Existing Point-to-Point Call 206
Auto Answer Multipoint Mode Configuration 207
Setting the Auto Answer Multipoint Mode 207
Conference on Demand (COD) 209
Implementation of Conference on Demand 209
COD User Interface Screens 210
Multipoint Call Screen 210
Video Phone Screen 210
Gatekeeper Screen 211
Streaming Video 212
Enabling Streaming 212
Configuring Streaming Options 213
Configuring Streaming for Apple QuickTime 214
Enabling and Starting Streaming on the ViewStation EX 214
Viewing Streaming with Apple QuickTime on the PC 214
Data Conferencing 216
Enabling Data Conferencing on your System 217
Using a ShowStation IP 217
Using Microsoft NetMeeting 217
People+Content 218

Chapter 7 - Using the System with a PC

Before you Begin 220
PC Requirements 220
Connecting the PC and the ViewStation EX to the LAN 220
Connecting the PC Directly to a ViewStation EX not on the LAN 223
Configuring your Web Browser 225
Internet Explorer Configuration 225
Netscape Configuration 226
Accessing the Web Interface 228

Features of the Web Interface 229
Placing a Call 229
Placing a Call from the Address Book 231
Placing a Call from the Global Address Book 231
Placing a Call Using the Manual Dialer 231
Loading and Selecting a Slide Presentation 232
Loading a Slide Presentation on the PC 233
Selecting a Slide Presentation on the ViewStation EX 236
Slide Display Information 238
Viewing a Slide Presentation 238
Viewing a Meeting 240
Closed Caption 240
Accessing and Using Closed Caption 241
Additional Information About Closed Caption 241
PC-Resident Applications 243
PolycomSnap 243
NetMeeting 245
Enabling NetMeeting on the ViewStation EX 246
Accessing NetMeeting 246
Information About Placing an IP Video Calls with NetMeeting 247
Polycom Management Access Control Wizard (PMAC) 248
Installing a Logo 249
Creating Custom Speed Dial and Custom Video Numbers Screens 249
Creating the Management Password 250
Password-Protecting Individual Screens 251
Connecting to and Disconnecting from your System 252
Open and Save Profiles 252
System Setup and Remote Management 253
Admin Setup/General Setup 254
System Diagnostics 255
System Diagnostics 255
Virtual Remote Control 256
Send a Message 257
Call Detail Report (CDR) 258
Streaming 261

Chapter 8 - Troubleshooting

General 264
Audio 265
Video 267
Network and Communications 269
IMUX 271

© Polycom, Inc. 2003

LAN/Intranet 272
Presentations 273
Remote Control 275

Appendix A - Screen Reference

System Information Reference 278
Diagnostics Screen Reference 280
Network Statistics 280
Advanced Network Statistics 281
About Polycom Video Error Concealment™ (PVEC) 282
Call Status 283
Color Bars 283
Audio 284
Generate Tone 284
Audio Meter 285
Near End Loop 285
Far End Loop 286
Reset System 286
User Setup Screen Reference 287
Admin Setup Screen Reference 292
General Setup 293
V.35/RS-449/RS-530 Video Network Screens 295
Multipoint Setup 295
Call Preferences 295
Video Network 296
Dialing Speeds 296
Broadcast Mode 296
Advanced Dialing 296
Video Numbers 296
Advanced V.35 296
BRI Video Network Screens 296
IMUX (Inverse Multiplexer) 297
ISDN Video Numbers 297
Auto Detect SPIDs 297
Audio Quality 297
Advanced Dialing 297
Dialing Speeds 297
Call Preferences 297
Multipoint Setup 298
ISDN Video Network 298
LAN Setup Screens 298
LAN & Intranet (main) 298

LAN & Intranet (Configuration) 298
Advanced LAN Settings 298
Firewall & LAN Connection 298
H.323 Setup (main) 299
H.323 Setup (configuration) 299
Dialing Speeds 299
Gateway & Gatekeeper 299
Gateway Number 299
Gateway Setup 299
Streaming 299
SNMP Setup 299
Global Address (Main) 300
Global Address (Server) 300
Global Address Book Preferences 300
Preferred Alias 300
Advanced Address Book Preferences 300
Private Network ISDN Number 300
Dialing Rules 1 300
Dialing Rules 2 301
Global Management (Main) 301
Global Management (Configuration) 301
Global Management URLs 301
Global Management Info 301
Quality of Service 301
Data Conference 301
Telephone & Audio 304
Video and Cameras Screens 305
Monitors 305
TV Monitors 306
Graphics Monitor 307
EX VGA Monitor 308
Cameras 308
VCR Setup 310
VGA Input Calibration 311
Security 312
Crypto Resync Pulse 313
Software and Hardware Screens 313
Software 314
RS-232 314
Hardware Information 314
Send Address Book 315
Far Site Software Update 315
System Options 315

© Polycom, Inc. 2003

Appendix A - Interoperability Information

H.320 Endpoint Interoperability 317
H.323 Endpoint Interoperability 318
MCU H.320 Interoperability 319
MCU H.323 Interoperability 319
Gateway/Gatekeeper/T120 Server Interoperability 320
Firewall/NAT Interoperability 321

Appendix A - ViewStation EX Technical Specifications

ViewStation EX Technical Specifications 323

Appendix A - Security Features

Security Screens 332
    Admin and Meeting Password Screen 332
    Security Screen 332
PMAC Security Features 333
    Creating the Management Password 334
    Password-Protecting Individual Screens 335
Security Features and Enhancements 336
    Password for pcPresent (PowerPoint slides) 336
    Digest Implementation 336
    Adtran 512 336
    Disabling Mixed Protocols 337
    Telnet and FTP Timeout 337

List of Figures

Figure 1-1.Help Screen (Main) 23
Figure 1-2.Help Screen (Topics) 24
Figure 2-1.ViewStation EX with Sony EVI-10 Camera 32
Figure 2-2.V.35/RS-449/RS-530 Network Interface Module (P-LINK side) 36
Figure 2-3.V.35/RS-449/RS-530 Network Interface Module (NETWORK side) 37
Figure 2-4.Quad BRI Network Interface Module (P-LINK side) 39
Figure 2-5.Quad BRI Network Interface Module (Network side) 40
Figure 2-6.Softupdate Screen 46
Figure 2-7.Softupdate System Info Screen 47
Figure 3-1.Welcome (Language) Screen 59
Figure 3-2.How to Select Menu Items Screen 60
Figure 3-3.System Name Screen 61
Figure 3-4.Country Screen 62
Figure 3-5.H.323 Setup Screen 64
Figure 3-6.Video Network Screen 69
Figure 3-7.Dialing Speeds Screen 70
Figure 3-8.Advanced Dialing Screen 71
Figure 3-9.Advanced Dialing Screen (Calling Profile List) 72
Figure 3-10.Video Numbers Screen 73
Figure 3-11.ISDN Video Numbers Screen 75
Figure 3-12.Auto Detect SPIDs Screen 75
Figure 3-13.ISDN Switch Protocol Screen 76
Figure 3-14.Outside Line Calls Screen 77
Figure 3-15.Telephone Numbers Screen 78
Figure 3-16.ViewStation EX Main Screen 81
Figure 3-17.Main Screen (showing network conditions) 82
Figure 4-1.LAN & Intranet Screen 86
Figure 4-2.Advanced LAN Settings Screen 89
Figure 4-3.Firewall & LAN Connection Screen 91
Figure 4-4.H.323 Setup Screen (configuration) 94
Figure 4-5.Dialing Speeds Screen 95
Figure 4-6.Gateway & Gatekeeper Screen 98
Figure 4-7.Gateway Number Screen 100
Figure 4-8.Gateway Screen 101
Figure 4-9.Advanced V.35 Screen 104
Figure 4-10.Video Network Screen and Broadcast Mode Screens 106
Figure 4-11.Dialing Speeds Screen 107
Figure 4-12.Advanced Dialing Screen (Page 1) 109

© Polycom, Inc. 2003

Figure 4-13.Advanced Dialing Screen (Calling Profile List)....109
Figure 4-14.Crypto Resync Pulse Screen....110
Figure 4-15.ISDN Video Numbers Screen....112
Figure 4-16.Auto Detect SPIDs Screen....113
Figure 4-17.Audio Quality Preference Screen....115
Figure 4-18.Advanced Dialing Screen....116
Figure 4-19.Dialing Speeds Screen....117
Figure 4-20.Global Address (Server) Screen....121
Figure 4-21.Global Address Book Preferences Screen (for IP and ISDN Calls)....122
Figure 4-22.Dialing Rules 1 Screen....127
Figure 4-23.Dialing Rules 2 Screen....128
Figure 4-24.Global Management (Setup) Screen....132
Figure 4-25.Global Management URLs Screen....134
Figure 4-26.Global Management Info Screen....135
Figure 4-27.Streaming Screen....136
Figure 4-28.SNMP Setup Screen....138
Figure 4-29.Quality of Service Screen....140
Figure 5-1.Remote Control....145
Figure 5-2.Video Phone Screen....148
Figure 5-3.Call Progress Indicators....150
Figure 5-4.Call Hangup Choices Screen....150
Figure 5-5.Address Book Screen....153
Figure 5-6.Speed Dial Screen....154
Figure 5-7.Telephone Screen....158
Figure 5-8.Address Book Screen....161
Figure 5-9.Add/Change Entry Screen....162
Figure 5-10....167
Figure 5-11.Camera Control Button on Remote Control....169
Figure 6-1.Cascading 10 Sites in a Multipoint Call....201
Figure 6-2.Chair Control Screen....203
Figure 6-3.Gatekeeper Screen....211
Figure 6-4.Streaming Screen....212
Figure 6-5.Data Conference Screen....216
Figure 7-1.LAN & Intranet Screen....221
Figure 7-2.Placing a Video Call Web Screen....230
Figure 7-3.pcPresent Screen....234
Figure 7-4.pcPresent: File Open Screen....235
Figure 7-5.Available Presentations Screen....236
Figure 7-6.Presentation Password Screen....236
Figure 7-7.Presentation Directory (showing Loaded Slides) Screen....237
Figure 7-8.View a Meeting Web Screen....240
Figure 7-9.PolycomSnap Interface....244
Figure 7-10.General Setup Web Screen....254
Figure 7-11.System Diagnostics Web Screen....256

Figure 7-12.Web Interface Call Detail Report screen (partial view) 258
Figure 7-13.Streaming Web Screen 261
Figure A-1.User Setup Screen 287
Figure A-2.Admin Setup Screen 292
Figure A-3.Data Conference Screen 302
Figure A-4.Telephone & Audio Screen 304
Figure A-5.Graphics Monitor Screen 307
Figure A-6.VCR Setup Screen 310
Figure A-7.VGA Input Calibration Screen 311

List of Tables

Table 1-1.Key features of the ViewStation EX system 18
Table 4-1.Dialing rules used by the Global Address Book 126
Table 5-1.Remote Control Functionality 145
Table 5-2.Graphic cursor function and remote control 179
Table 6-1.Multipoint Dialing Speeds 183
Table 6-2.Mixed Protocol Dialing Speeds 184
Table 6-3.Firewall TCP/UDP Ports in Multipoint Calls 186
Table 6-4.MCU Meeting Password Protection 199
Table 6-5.Dial-In Calling with an Existing Point-to-Point Call 206
Table 6-6.Dial-In Calling with no Existing Point-to-Point Call 206
Table 7-1.Password Usage with PMAC 251
Table B-1.H.320 Endpoint Interoperability 317
Table B-2H.323 Endpoint Interoperability 318
Table B-3.MCU H.320 Interoperability 319
Table B-4.MCU H.323 Interoperability 319
Table B-5.Gateway/Gatekeeper/T120 Server Interoperability 320
Table B-6.Firewall/NAT Interoperability 321
Table C-1.ViewStation EX Technical Specifications 323
Table C-2. 329
Table D-1.Password Usage with PMAC 334

© Polycom, Inc. 2003

1

Welcome to the ViewStation EX

The ViewStation EX system is an easy-to-use, yet powerful set-top, network appliance that provides the clearest audio and video in the videoconferencing industry. The ViewStation EX system is a mid-range conference room product that was designed to deliver quality video and audio communications to mid-size conference rooms, boardrooms, classrooms and custom conferencing facilities.

Note

Throughout this manual, the word "system" refers to the ViewStation EX system.

Topics in This Chapter

The following topics are included in this chapter.

Topic	Description	Page
Feature Highlights	This is an overview of the ViewStation EX system's main features and benefits.	18
What is in the Box?	This section lists the contents of the ViewStation EX shipping container.	20
Help and Technical Support	This section describes how to use the system **Help** screen and how to contact Technical Support.	23

© Polycom, Inc. 2003

Feature Highlights

The following table provides a summary of the ViewStation EX system's main features and benefits. Refer also to the ViewStation EX Technical Specifications in Appendix D for additional information.

Table 1-1. Key features of the ViewStation EX system

Feature	Description
Video	The ViewStation EX system delivers TV quality video for lifelike conferencing interaction while fully supporting the H.263 video standard and the new 60 fields/ second ITU standard.
Audio	The system provides clear 360 degree, full-duplex, digital audio with noise suppression, switchable echo cancellation and automatic gain control, as well as customized audio—extended audio flexibility via dual microphone pods and line-level audio input for custom microphones/mixers.
Camera Support	Supports a pan-tilt-zoom camera, a VCR and document camera input, including support for the Visual Concert™ DC.
Network Flexibility	The system supports the Quad BRI, V.35/RS-449/RS-530, and Ethernet network interfaces up to 768 Kbps.
Multipoint Videoconferencing	The ViewStation EX can be upgraded using a special key to support MultiPoint Plus as an option. The system contains an embedded four-port MCU for easy, on-demand, multipoint conferencing. Up to four sites can participate (over IP and ISDN in the same call) at 128 Kbps for ISDN and 256 Kbps for IP for a continuous presence, voice activated, or a chair control call using the one-button address book dialing.
Mixed Protocol Dialing	Mixed Protocol Dialing enables up to four sites over IP and ISDN in the same call.
Dial-In Calling	While in a video call, other endpoints (IP, ISDN, or POTS) can dial into the call or easily be added by a call from the host.

Table 1-1. Key features of the ViewStation EX system

Cascading	The Cascading feature allows you to add more video and audio participants to a multipoint video call, without the need for a bridge. Each of the second-level system in a four-site multipoint videoconference can call up two more video and one audio site. Up to ten total video sites and four total audio sites can participate in the call using the built-in MCU.
Two-Monitor Support	Two-monitor support allows to simultaneously display full-screen video from up to four endpoints, plus PC content on a separate SGA projector.
People+Content™	The Polycom People+Content (P+C) standard, implemented on the ViewStation EX, ViewStation FX, VS4000, MGC 5.0, iPower 5.0, and PathNavigator products, allows live video and live graphics to be transmitted and received with all the above-listed Polycom products.
Conference on Demand™	This feature allows you to bring multiple endpoints together in a videoconference on an unscheduled basis. With Conference on Demand, users can place multipoint video calls to remote participants by only using their names and/or the numbers that correspond to those remote locations. Users donít need to save the meeting name before making the meeting call.
High-resolution Graphics	The system supports high-resolution XGA live graphics with Visual Concert ™ FX.
Streaming	The streaming feature allows the system to multicast the videoconference to viewers over IP.
Public and Private Networks	The system supports both public and private networks through ISDN BRI, V.35/RS-449/RS-530, and Ethernet networks.
Web Management	With embedded Web capabilities and remote management, IT managers can perform diagnostics and software upgrades.
Dual 10/100 Mbps Ethernet Ports	Through the dual 10/100 Mbps Ethernet port you can make IP calls, connect PCs, and allow Global Management System™ access and management.

© Polycom, Inc. 2003

What is in the Box?

The following section describes the contents of the ViewStation EX shipping container.

ViewStation EX

The following items are included in the ViewStation EX box:

- ❑ ViewStation EX unit
- ❑ Documentation
  - Read Me First
  - ViewStation EX QuickStart
  - Documentation CD
- ❑ 1 microphone pod
- ❑ 1 power supply and cord
- ❑ 1 remote control
- ❑ Cable kit with:
  - 1 RJ-9 microphone cords (brown)
  - 1 S-video/triple RCA monitor cable (yellow, white, and red)
  - 1 RJ-45 keyed cable for connection to the network interface module (light blue)
  - 1 RJ-45 cable for connection to the LAN (orange)
  - 1 DB-9 serial port cable for connection to a touch panel

Network Interface Module

The system may also include one of the following network interface equipment(s) (as specified by the user):

- ❑ V.35/RS-449/RS-530 network interface:
  - V.35/RS-449/RS-530 module
- ❑ Quad BRI network interface:
  - Quad BRI Inverse Multiplexer (IMUX)
  - 4 RJ-45 cables
  - 1 RJ-45 cable with a keyed connector

Additional Information

The following provides important information about essential components of the system: the remote control, the microphone pods, and the power supply.

Remote Control

The remote control is an integral part of the system. You can use the remote control to configure and operate your system. Once you have the system set up and running, press the yellow INFO button on the remote control for a basic description of the remote control buttons.

For more information about the remote control, refer to Remote Control on page 144.

Microphone Pod

The microphone pod provides digital audio input to the system.

The microphone pod has an audio range of approximately 30 feet (9-meters) and provides automatic gain control, noise suppression, and echo cancellation. You can press the MUTE button on the microphone to silence your end of the call. When the MUTE button is lighted, your end of the call is muted.

An optional microphone pod provides enhanced audio pickup. Your system supports a maximum of two microphone pods daisy-chained together.

© Polycom, Inc. 2003

To connect the microphone pods to the system:

1. Connect the 30-foot (9-meter) cable to the system and one of the microphones pods.
2. Connect the 10-foot (3-meter) cable between the two microphone pods.

Note

Connecting and disconnecting the microphones does not require a reboot of the system.

Power Supply

The ViewStation EX system has an external power supply. It supports line voltages between 100V and 240V and line frequencies from 47 Hz to 63 Hz.

Note

You void the warranty and may possibly damage your system if you do not use the provided power supply.

Help and Technical Support

This section provides information about using the on-screen help, basic troubleshooting, and contacting Polycom Technical support

Using Help

To access the Help screen:

Press the INFO button on the remote control. If your system is registered with a Global Management System, the following **Help** screen appears.

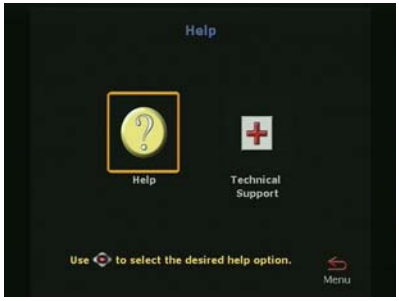

Figure 1-1. Help Screen (Main)

Help Topics

To access the Help screen:

Click the **Help** icon.

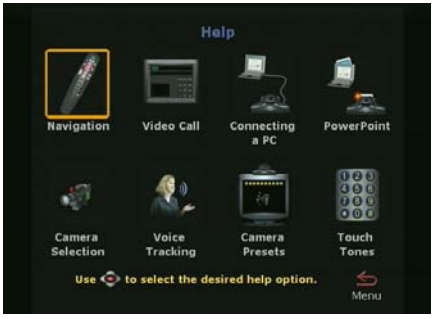

Figure 1-2. Help Screen (Topics)

Select the appropriate help topic from this screen. The topics provide assistance with basic system usage.

Troubleshooting

This section contains basic troubleshooting information. For more detailed information, refer to the Troubleshooting chapter.

General

Following are the most-often encountered problems and their solutions.

Remote control is not working.

Make sure the batteries are installed. Make sure you are pointing the remote control at the system's IR detector. If battery power is low, a low battery icon appears on the main screen.

Software Update appears when you power on the ViewStation EX system.

The system software is corrupt or not loaded properly. Load system software on the system from your PC. For instructions on how to do this, refer to Upgrading Software, or consult your network equipment provider.

A lightning bolt indicator appears on the left side of your far or near-site screen.

The lightning bolt is only a visual indicator that informs you about WAN or LAN network problems. It does not indicate performance problems with your system.

If you are in an H.320 call, the lightning bolt most likely indicates that the telephone company is experiencing bit errors on the line. Contact and inform your telephone company of the existing problem.

If you are in an H.323 call, the lightning bolt may signify that your LAN network is experiencing packet loss, accompanied by video and audio degradation. Contact your network manager.

The lightning bolt works differently in H.320 and H.323 calls for software version 2.5 and above:

- In H.320 calls, the lightning bolt appears if there are 3 or more CRC (Cyclic Redundancy Check) errors within a period of one second, or if there are 10 or more FEC (Forward Error Correction) errors in a period of one second.

- In H.323 calls, the lightning bolt appears if more than 100 audio and video packets are lost. The display counter is reset each time the lightning bolt appears.

The lightning bolt is triggered when your system detects a certain level of packet loss on the network. The frequency of the packet loss rate can be adjusted using the remote control shell (either via RS-232 or via Ethernet/Telnet). .Refer to the *ViewStation EX, ViewStation FX, and VS4000 ARENA API Programmer's Guide*.

© Polycom, Inc. 2003

Audio

Following are the most-often encountered audio problems and their solutions.

No audio in a call.

- ❑ The system is connected to the wrong audio input on the monitor. Make sure the monitor cables are connected as shown in the *QuickStart* color cable diagrams.
- ❑ Far site is muted. If the far site is muted, a far site **Mute** icon appears in the lower left corner of the monitor. Ask the far site to press the MUTE button on the remote control to check if it is muted or is not connected properly.
- ❑ Use the **Generate Tone** test on the ViewStation EX system to help diagnose the problem.
- ❑ Make sure that the microphone pod is positioned correctly for the meeting configuration. If the microphone pod is behind the meeting participants, you may not be able to hear them speak. For the best audio, always position the microphone pod between the monitor and the person closest to the monitor. As most people face the monitor during a call, following this rule ensures that the meeting participants are also facing the microphone pod.
  You can also daisy-chain microphone pods along the conference table. Additional microphone pods can be purchased from the Polycom Web store. Follow the same rule for multiple microphone pods and do not position the pods behind the meeting participants.

You hear echoes when speaking.

Echoes are always caused by the far site in a call. Have the far site turn down the volume and make sure that their microphones are placed away from the system and monitor speakers.

Not enough volume in a call.

The volume is set too low on either the system or the television monitor. For best results, set the volume on the television monitor to

one-half its maximum volume and set the volume on the system to a comfortable level.

Video

Following are the most-often encountered video problems and their solutions.

No picture on the main monitor.

The system enters sleep mode after 3 minutes of inactivity. In sleep mode, the system appears to be powered off. To "wake up" the system, pick up the remote control, or press the button on the front of the system.

Same picture on first and second monitors.

- ❑ You pressed the SNAPSHOT button. The second monitor is previewing the video on the primary monitor for the snapshot. Press SNAPSHOT to send a snapshot and then press SNAPSHOT again to return to live video.
- ❑ You may have connected your second composite monitor to the VCR out port on the back of the system.

How to Contact Technical Support

By Phone

Before calling Polycom technical support, have the following information ready:

- ❑ Description of the issue
- ❑ The ViewStation's 14-digit serial number on the label located on the bottom of the unit.

Contact Polycom Technical Support at 1-800-POLYCOM. Listen for the product support prompt.

© Polycom, Inc. 2003

By Internet

To contact Polycom technical support, go to the Polycom Global Services Web page at **http://esupport1.polycom.com/cgi/top.asp**.

This page allows you to enter your contact information as well as a question or a description of the problem. Including the following information will decrease the amount of time needed to assess your situation:

- ❑ The ViewStation's 14-digit serial number on the label located on the bottom of the unit.
- ❑ Software revision of the product
- ❑ Network information
- ❑ Troubleshooting steps you tried to implement

Response time to technical support inquiries will not exceed two business days. Response time on basic or technical information requests about Polycom products and their capabilities may vary with the complexity of the question.

2

Installing the ViewStation EX

This chapter provides all of the instructions you need to install the ViewStation EX system successfully. It also covers the optional network interface installation if you are using ISDN for your video calls.

You should read this chapter in conjunction with the *QuickStart* card. This card was shipped in the system box.

Topics in This Chapter

The following topics are included in this chapter.

Topic	Description	Page
What you Need to Install the ViewStation EX System	This section lists the additional items that you need to install your ViewStation EX system.	30
Equipment Installation	This section gives step-by-step instructions needed to install the system and, if applicable, the appropriate network interface.	33
Upgrading Software	This section describes how to update software over an IP or ISDN network.	45
Upgrading the System for Multipoint Calls	This section describes how to add the multipoint key to enable multipoint calling on the ViewStation EX system.	55

© Polycom, Inc. 2003

What you Need to Install the ViewStation EX System

This section lists the additional items you need to install the ViewStation EX system. It also provides a checklist of information you should have on hand during the installation process.

For details about the system components, see the *QuickStart* card provided with each system.

Television Monitors

You can use the ViewStation EX with two television monitors and a VGA monitor that operates at 75 Hz or higher with a resolution of 800 x 600, 1024 x 768, or 1280 x 1024.

The ViewStation EX system can use any S-video or composite television monitor as the primary monitor. The other monitor has to be S-video.

The size of the monitor should be proportional to the size of the room where video conferences take place.

Network Interfaces

Ethernet

A Local Area Network (LAN) Ethernet connection is needed if you plan to use IP.

ISDN

If you are using one of the following ISDN network interfaces with your system, you will need the appropriate network equipment and access to services for the specified network interface:

- ❑ V.35/RS-449/RS-530 network interface:
  - V.35/RS-449/RS-530 module
  - Optional cables used to connect the V.35/RS-449/RS-530 module to the DCE:
    - (V.35 "Y" cable (HD-44M to DB-25M/RS-366 and M34 "Winchester" V.35)
    - RS-449/422 "Y" cable (HD-44M to DB-25M/RS-366 and DB-37M/RS-449/422)
    - Ascend cable (HD-44M to HD-44M)

Note

These cables are available from the Polycom Web store.

  - Access to your Data Communications Equipment (DCE) or Data Service Unit (DSU).
- ❑ Quad BRI network interface:
  - Quad BRI Inverse Multiplexer (IMUX)
  - 4 RJ-45 cables
    - 1 RJ-45 cable with a keyed connector
    - BRI line ordered from your service provider

Power Source

The ViewStation EX system has an external power supply. It supports line voltages between 100V and 240V and line frequencies from 47 Hz to 63 Hz.

Warning

You void the warranty and may possibly damage your system if you do not use the provided power supply.

© Polycom, Inc. 2003

Integrated Cameras

Sony EVI-10 Camera

The ViewStation EX system supports the Sony EVI-10 camera. This camera has a built-in wide-angle lens and has a new form factor.

Figure 2-1. ViewStation EX with Sony EVI-10 Camera

Caution

Attaching a third-party vendor wide-angle lens will cause damage that is not covered by your product warranty. Third-party lenses will rub against the system's enclosure when the camera is reset.

Note

The camera is controlled with the remote control that is shipped with the system. Manually adjusting the camera can damage the unit.

NT-1 Device

An ISDN network termination (NT-1) device may be required between your ISDN line and the system. If your system is not connected to an internal switchboard, such as a PBX, it may require an ISDN termination resistor to be installed.

Required Information

Before you start installing the equipment, obtain the following information:

- ❑ **IP address of the ViewStation EX system:** to be provided by your Internet Service Provider or system administrator.
- ❑ **ISDN numbers:** to be provided by your Network Service Provider.
- ❑ S**PIDs:** to be provided by your Network Service Provider.
- ❑ **Switch protocols**: to be provided by your Network Service Provider.
- ❑ **Gatekeeper address**: to be provided by your Network Service Provider or system administrator.
- ❑ **Firewall information:** to be provided by your Network Service Provider or system administrator.
- ❑ **Telephone numbers:** to be provided by your system administrator.

Equipment Installation

This section describes how to set up the following equipment:

- ❑ **ViewStation EX.** See Setting up the ViewStation EX.
- ❑ **Network interface modules (V.35/RS-449/RS-530, and BRI)**. See ISDN Network Interface Modules.

© Polycom, Inc. 2003

Setting up the ViewStation EX

To connect your cables and equipment to the back of the ViewStation EX system:

1. Place the system on top of the television monitor with the front lip overhanging the top of the television monitor.
2. Place the microphone pod on a flat surface between the meeting participants and the television monitors. Do not place the microphone pod near the television monitor speakers.

Note

Connecting and disconnecting the microphone off the system does not require a reboot of the system.

3. Connect the required equipment and cables to the back of your system as shown in the *QuickStart*.
4. Connect any optional equipment to the back of your system as shown in the *QuickStart*. Optional equipment can include a PC, VCR, telephone, audio mixer, document camera, XGA projector or monitor, Visual Concert FX, or additional television monitors.

   Note

   The colors on the cables match the colors on the back of the system panel.

5. To prevent cable entanglement, wrap the enclosed cable tie around all of the cables.
6. Put the batteries in the remote control.

You are now ready to set up your network interface. See ISDN Network Interface Modules, on page 35 for additional information.

ISDN Network Interface Modules

This section explains how to install the following ISDN network interfaces:

- **V.35/RS-449/RS-530.** See Setting up the V.35/RS-449/RS-530 Network Interface on page 35.
- **BRI.** See Setting up the Quad BRI Network Interface on page 38.

Setting up the V.35/RS-449/RS-530 Network Interface

This section explains how to install and connect the V.35/RS-449/RS-530 network interface module so that you can make calls over ISDN with the system.

The V.35/RS-449/RS-530 network interface supports the V.35, RS-449, or RS-530 protocol depending on the cable you use to connect your equipment.

Connecting a V.35/RS-449/RS-530 network interface module to your system:

1. Make sure your system is turned off.
2. Insert one end of the light blue keyed cable into the light blue port on the back of the system. The cable has special RJ-45 connectors that are not interchangeable with normal RJ-45 connectors.
3. Insert the other end of the light blue RJ-45 cable into the input port labeled on the network interface module.

© Polycom, Inc. 2003

Figure 2-2 shows the peripheral link (P-LINK) side of the network interface module that connects to the EX system.

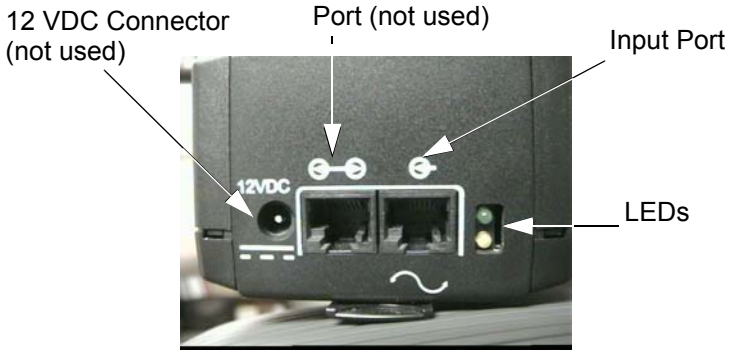

Figure 2-2. V.35/RS-449/RS-530 Network Interface Module (P-LINK side)

To connect the V.35/RS-449/RS-530 network interface module to the DCE:

The V.35/RS-449/RS-530 network interface module contains two HD-44 female ports (labeled 1 and 2) that connect to the data communications equipment (DCE).

1. Connect the HD-44 male cable ends to ports 1 and 2 on the network interface module. If you want to connect only one cable, connect to port 1 on the interface module.
2. Tighten the screws on the connectors.
3. Connect the remaining cable ends to the DCE's V.35/RS-449/RS-530 port and the DB-25 RS-366 dialing port, if used. If you are connecting only one cable, connect to the lowest ordered port on your DCE.
4. Tighten the screws on the connectors.
5. Power on the television monitor.
6. Power on the system. Once you power up the system, there is a 20-second delay before you see the Polycom logo.
7. Once your interface is properly connected, you are ready to configure your system. Proceed to chapter 3.

Figure 2-3 shows the network side of the network interface module that connects to the DCE.

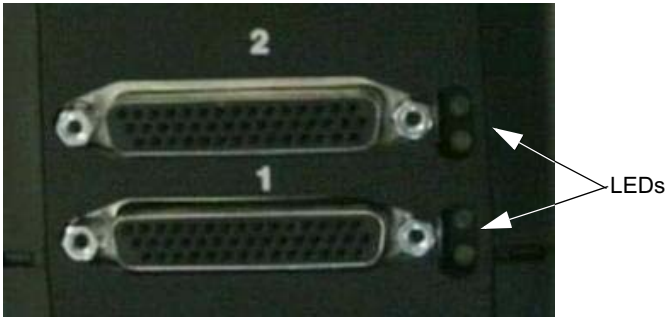

Figure 2-3. V.35/RS-449/RS-530 Network Interface Module (NETWORK side)

Special Information

V.35/RS-449/RS-530 Module Interchangeability. This system only operates with the V.35 module that is compatible with the ViewStation FX. It is not compatible with the V.35 module that operates with the ViewStation H.323 system. The new module uses HD-44F connectors (ports 1 and 2), and uses a keyed RJ-45 connector for the serial link to the back panel of the ViewStation EX system. An HD-44M to DB-25F adapter cable is available as an option to connect existing V.35/RS-449/RS-530 network cables, if necessary.

Cable Information. The following optional cables used to connect the V.35/RS-449/RS-530 module to the DCE are available from the Polycom Web store:

- ❑ V.35 "Y" cable—HD-44M to DB-25M/RS-366 and M34 "Winchester" V.35
- ❑ RS-449/422 "Y" cable—HD-44M to DB-25M/RS-366 and DB-37M/RS-449/422
- ❑ Ascend cable—HD-44M to HD-44M

Cable drawings and pinout information is available in the "V.35 Technical Information" section of the *Integrators' Reference Manual for ViewStation EX, ViewStation FX, and VS4000.*

© Polycom, Inc. 2003

V.35/RS-449/RS-530 Cable Adapter Kit. You can also purchase an additional cable adapter kit (available through your reseller) to extend the distance between your system and the V.35/RS-449/RS-530 network interface module.

V.35/RS-44/RS-530 and RS-366 Connections. The V.35/RS-449/RS-530 connection on the V.35 cable is used for data and the RS-366 connection is used for dialing. If you plan to place 2 x 56 Kbps or 2 x 64 Kbps calls, use one cable for each port.

Note

If your DCE does not use dialing, do not use the RS-366 (DB-25M) connector.

LED Information. Refer to the V.35/RS-449/RS-530 Technical Information section of the *Integrators' Reference Manual for ViewStation EX, ViewStation FX, and VS4000*.

Setting up the Quad BRI Network Interface

This section explains how to install and connect the Quad BRI network interface module so that you can make calls over ISDN with the ViewStation EX system.

To connect the Quad BRI network interface module to the system:

1. Make sure your system is turned off.
2. Find the cable with the light blue RJ-45 keyed connector on one end and the green RJ-45 (non-keyed) connector on the other end.
3. Insert the light blue RJ-45 keyed connector into the light blue RJ-45 keyed port on the back of the system.
4. Insert the green (non-keyed) RJ-45 connector into the green RJ-45 port labeled on the network interface module.

Figure 2-4 shows the peripheral link (P-LINK) side of the Quad BRI network interface module that connects to the ViewStation EX system.

Figure 2-4. Quad BRI Network Interface Module (P-LINK side)

To connect the Quad BRI network interface module to the BRI network:

1. Attach your RJ-45 network cable(s) from port 1 on your ISDN BRI network to the connector labeled ISDN S/T on the Quad BRI network interface module.
2. Power on the television monitor.
3. Power on the system. Once you power up the system, there is a 20-second delay before you see the Polycom logo.
4. Once your interface is properly connected, you are ready to configure your system. Proceed to chapter 3, Initial System Setup.

© Polycom, Inc. 2003

Figure 2-5 shows the network side of the Quad BRI network interface module that connects to the ISDN BRI network.

Figure 2-5. Quad BRI Network Interface Module (Network side)

Special Information

Quad BRI/IMUX. The Quad BRI is also called IMUX (for Inverse Multiplexer). With the Quad BRI, you can connect up to four ISDN lines to the video conferencing unit. The Quad BRI allows multi-line ISDN connections to be "muxed" together to create a higher bandwidth connection to the far-site device. Each ISDN line adds 128 Kbps to the possible operating line.

ISDN Lines. The system can use up to four ISDN lines. Note that the system only require a single functioning ISDN line to operate, but speeds greater than 128 Kbps require the use of additional ISDN lines.

NT-1. If you are not connected to an internal phone system, called a PBX, you will need to connect the ISDN cables from your system to the Quad BRI module, to the network termination (NT-1) device, which is connected to the ISDN wall jack.

For more information about ISDN, refer to the *Integrators' Reference Manual for ViewStation EX, ViewStation FX, and VS4000*.

LED Information. Refer to the BRI Technical Information section of the *Integrators' Reference Manual for ViewStation EX, ViewStation FX, and VS4000*.

Optional Equipment

You can enhance your videoconferences by using optional equipment. Refer to the *ViewStation EX QuickStart* for color cable diagrams that show how to connect optional equipment to the system.

Second Monitor

The second monitor displays what would otherwise be displayed in the smaller picture-in-picture window of a single-monitor system.

To install a second monitor:

1. Insert the monitor cable in the monitor 2 output jack.
2. Connect the other end to the monitor 2 output jack.

   a.

VCR

You can use a video cassette recorder (VCR) to record your videoconference or to present recorded material as part of your videoconference. The VCR records video from the near site's main television monitor and audio from both the near and far sites. When playing tapes, the VCR provides audio and video to all participants in a call.

1. To play a tape in the VCR, press the NEAR button on the remote control twice.
2. Use the ARROW buttons to highlight the **VCR** icon on the screen. Press the SELECT button on the remote control.
3. Use the VCR remote control to play the tape.

© Polycom, Inc. 2003

Document Camera

You can use a document camera to take pictures of an object or document and send them to a far site.

1. To use a document camera with your system, press the NEAR button on the remote control twice.
2. Then use the ARROW buttons to highlight the **Document Camera** icon on the screen. Press the SELECT button on the remote control.

Visual Concert DC

Visual Concert™ DC is part of the Visual Concert series of collaboration products designed to maximize video conferencing. This is a custom-integrated document camera that has the ability to send images at SXGA (1280 x 1024) resolution with full motion capture during a video call. It lets you save images from the glass onto a PCMCIA card, annotate images with a virtual drawing pen, view transparent material using backlighting or send a high-resolution preview with the SNAPSHOT button.

For more information about installing Visual Concert DC, consult *Visual Concert DC User Guide* and *Visual Concert DC QuickStart*.

Visual Concert FX

The ViewStation EX system supports the use of Visual Concert™ FX.Visual Concert™ FX is a collaborative product with the capability of transmitting a high-resolution graphics stream with high-quality audio in any conference, including multipoint calls. It is transmitted to the other site in a conference in tandem with your live video stream. It works with your laptop, desktop, or Macintosh at resolutions up to and including 1280 x 1024.

The video and graphic images can be displayed at both the near and far ends in dual stream mode, video on one monitor and the live graphics on a second monitor (for example, the far site can see you and your presentation live at the same time).

The live images can be from virtually any source on the laptop or desktop such as PowerPoint, Excel, a Web page or proprietary software applications. Visual Concert FX is designed to transmit graphics at SXGA resolution (1280 x 1024), but will auto-sync to match the resolution of the laptop and scale to match the best resolution at the far end. A VGA-out port on the unit allows the flexibility of connecting a high-resolution projection system or monitor for in-room displays.

Dual Stream Compatibility

Visual Concert FX dual stream is compatible with the Polycom Accord MCU version 3.01 in ISDN multipoint calls. All sites are able to see the presenter and the PC at the same time.

Limitations

If the far site cannot support dual streams, the system reverts to sending the live computer screen as the main video stream.

Note

For more information about installing Visual Concert FX, consult the *Visual Concert FX User Guide* and *Visual Concert FX QuickStart*.

ShowStation IP

The ShowStation® IP allows you to project any type of document or Microsoft Office file in big-screen format and share it with any location instantly.

The ShowStation IP works best when you have two ViewStation EX systems, two ShowStations with LAN cards, and an RJ-45 cable. For information about installing ShowStation IP refer to the *ShowStation User Guide*.

To connect and use the ShowStation IP:

1. Use the provided blue RJ-45 cable to connect the ShowStation LAN card to the blue LAN port on the back of the system. You

can also connect the ShowStation and the system to the same LAN.

2. Find the LAN name of the ShowStation. Click the **Toolbar** icon on the main menu of the ShowStation. The **Site Name** is under the **Preferences** tab.

3. Power on your system.

4. Select **System Info>Admin Setup>Data Conference** and enter the name of the ShowStation on the **Data Conference** screen.

5. Place a video call between the two ViewStation EX systems. When the systems connect, the ShowStations synchronize with one another automatically.

Once the systems have connected, a whiteboard appears on the ShowStations' LCD displays. It takes approximately 30 seconds for the whiteboard to appear once the video call is placed. You are now ready to use your ShowStation.

Upgrading Software

The Softupdate application will update all versions of ViewStation software. To update the software, your system must be on local area network (LAN) or directly connected to a PC via Ethernet.

Before you begin, print the *Read Me First* file that is provided with the system software. It contains updated information that may not be included in this guide.

Caution

Do not power off your system during the software update process. If you turn off your system during the download process, your system reverts to its original software version.

Upgrading Software over IP

You can upgrade the software on your system with the Softupdate application available from the Software Download Center on the Polycom Web site at **www.polycom.com**.

If you do not have Internet access, your reseller can supply you with the application on CD-ROM.

To upgrade your system software over IP:

1. Double-click the software zip file and extract the files to a directory on your PC.
2. Double-click the **Softupdate.exe** file to open the Softupdate application.

© Polycom, Inc. 2003

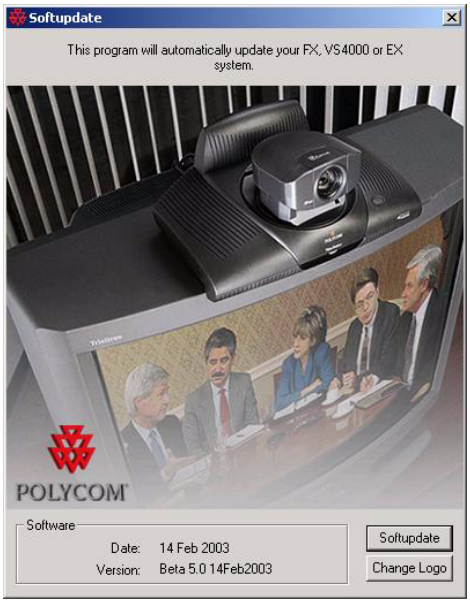

Figure 2-6. Softupdate Screen

3. Click the **Softupdate** button, as shown in Figure 2-6.
4. Enter the IP address of the system and the administrator password, if required, then click **OK**.
5. In the **System Info** screen, specify whether to delete the address book and system files during the update.
6. Determine whether you want to make your system a DHCP server. Selecting the **Allow System to be a DHCP Server** option will make the **Server** button visible on the **LAN & Intranet** screen in the user interface (**System Info>Admin Setup>LAN/H.323>LAN/Intranet>LAN&Intranet**).

Warning

Do not select the **Server** option if your system is on a LAN with other computers. If you do, the system provides IP addresses to the other computers on the LAN even though the LAN already has a

DHCP server. Your system administrators may have to repair any network problems this causes.

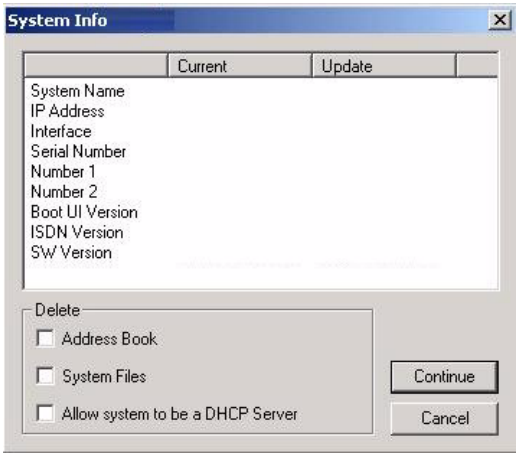

Figure 2-7. Softupdate System Info Screen

7. Click **Continue** to start the upgrade process.
8. When the upgrade has finished, click **OK** to close the dialog box.

Upgrading Software over ISDN (H.320)

The software on your ViewStation EX system can be upgraded through an ISDN (H.320) video call from any other ViewStation EX system.

You can perform a software update to the far site over your V.35/RS-449/RS-530, or BRI line during a call. Updating works best at speeds of 512 Kbps and below.

To upgrade your system over ISDN:

1. Place a video call to the system you want to upgrade.

2. Select **System Info > Admin Setup > Security** and write down the passwords that appear on the **Security** screen of the site you want to upgrade.
3. On the site sending the software, select **System Info>Admin Setup > Software/Hardware > Update** to access the **Far Site Software Update** screen.
4. Highlight the **Start** icon and press the SELECT button on the remote control.
5. Enter the passwords, highlight the **Start** icon, and press the SELECT button on the remote control to begin the upgrade process.

Once the software upgrade process is complete, your system automatically restarts.

Updating System Software From a PC on a LAN

To update your system software from a PC on the LAN:

1. Access the **Sofupdate.exe** file, as follows:
   - From the Update CD: Insert the Update CD into your drive.
   - From the Polycom Web site: 1. Go to the software download center at www.polycom.com. 2. Locate your product name and provide the required information. 3. Run the Softupdate application to download the latest software and update your system. Note that you need to decompress the file before you can run the Softupdate application.
2. Double-click the **Softupdate.exe** icon to open the application.
3. When the application opens, click the **Softupdate** button.
4. Enter the IP address of your videoconferencing system in the dialog box that appears. If the system has an administrator password, enter it here and click **OK**. If it does not have a password, leave it blank and click **OK**.
5. Softupdate will locate your system and provide basic information. To retain your existing address book and files,

select the appropriate options on the Softupdate screen. Then click the **Continue** button.

6. As the software is being upgraded, you will be informed of its progress. When it is finished, click the **OK** button. Your system will automatically reboot.

7. If you have purchased an MP upgrade key for multipoint calls, please refer to Upgrading the System for Multipoint Calls on page 55 for instructions on entering the key.

Updating System Software Directly From a PC

Updating your System Software to a Higher Version

To update your system software to a higher version than the one currently on the system, follow these steps:

1. Connect one end of the blue-tipped RJ-45 cable to the blue LAN connector on the back of your system. Connect the other end of the blue-tipped RJ-45 cable to the Ethernet PC card of your computer. Then turn on your system.

2. To connect to your desktop or laptop computer, you need to set your system as a DHCP server. To do so, follow these instructions:

   a. Select **System Info > Admin Setup > LAN/H.323 > LAN/Intranet** > **LAN & Intranet**.

Note

The **Server** button is visible on the **LAN & Intranet** screen only if the option **Allow System to be a DHCP Server** has been previously enabled in the **System Info** screen of the Softupdate application. For more information about enabling the option **Allow System to be a DHCP Server,** refer to Upgrading Software over IP.

   b. In the **DHCP** field, select **Server**. The following message will appear: “The system will now issue IP addresses to other PCs on the LAN. Continue?”

© Polycom, Inc. 2003

Caution

Do not use this setting if your system is on a LAN with other computers. If you do, your system will provide IP addresses to the other computers even though the LAN already has a DHCP server. Your IT personnel and system administrators will have to repair any network problems this causes.

c. Select **Yes** if you are absolutely certain you want to set your system as a DHCP server.

d. Press **Menu**. The following message will appear: "Power must be reset to save changes. Continue?" Select **Yes**.

e. Your system will automatically restart. It will now act as a DHCP server and will provide IP addresses to one or more PCs.

3. Go to the **System Information** screen. You should see the IP address 1.1.1.2, which is the IP address of your system.

4. Once you get an IP address, go to your PC and follow these instructions:

For Windows 95 and 98:

a. Right-click the **Network Neighborhood** icon, and then right-click **Properties**.

b. When the **Network** box appears, select the **Configuration** tab, then double-click **TCP/IP**.

c. Select the **IP Address** tab. Make sure the **Obtain an IP Address Automatically** button is selected. Then click **OK**.

For Windows NT 4.0:

a. Right-click the **Network Neighborhood** icon, and then right-click **Properties**.

b. When the **Network** screen appears, select the **Protocols** tab, then double-click **TCP/IP Protocol.**

c. Select the **IP Address** tab. Make sure the **Obtain an IP Address Automatically** button is selected. Then click **OK.**

For Windows 2000:

a. Right-click the **My Network Places** icon, and then right-click **Properties**.

b. In the **Network and Dial-up Connections** window, right-click **Local Area Connection**, and select **Properties**.

c. In the **Local Area Connection Properties** window, double-click **Internet Protocol (TCP/IP).**

d. In the **Internet Protocol (TCP/IP) Properties** window, make sure the **Obtain an IP Address Automatically** button is selected. Then click **OK**.

5. Restart your PC and insert the update CD into your drive. Or access the Softupdate.exe file from the Polycom Web site: 1. Go to the software download center at www.polycom.com. 2. Locate your product name and provide the required information. 3. Run the Softupdate application to download the latest software and update your system. Note that you need to decompress the file before you can run the Softupdate application.

6. Double-click the **Softupdate.exe** icon to open the application.

7. When the application opens, click the **Softupdate** button.

8. Enter the IP address of your system in the dialog box that appears. If you have an administrative password, enter it here and click **OK**. If you don't have a password, leave it blank and click **OK**.

9. Softupdate will locate your system and provide basic configuration information. To delete your existing address book and files, check the appropriate boxes.

10. Check the box **Allow System to be a DHCP Server**. Then click the **Continue** button.

11. As the software is being upgraded, you will be informed of its progress. When it is finished, click the **OK** button. The system will automatically reboot. Your system software has been loaded.

12. If you have purchased an MP upgrade key for multipoint calls, please refer to Upgrading the System for Multipoint Calls on page 55 for instructions on entering the key.

© Polycom, Inc. 2003

Updating a System Already Loaded With the Current System Software

To update your system software from the most-current version to the same current version or higher, follow these steps:

1. Connect one end of the blue-tipped RJ-45 cable to the blue LAN connector on the back of your system. Connect the other end of the blue-tipped RJ-45 cable to the Ethernet PC card of your computer. Then turn on the system.

2. To connect to your desktop or laptop computer, you need to set your system as follows:

   a. Select **System Info > Admin Setup > LAN/H.323 > LAN/Intranet > LAN & Intranet**.

   b. Press the **Up** arrow on the remote control to go to the **DHCP** field and set it to **Off**.

   c. In the **IP Address** field, enter the IP address 1.1.1.2.

   d. Press **Menu**. The following message will appear: "Power must be reset to save changes. Continue?" Select **Yes**.

   e. Your system will automatically restart.

3. Go to the **System Information** screen. You should see the IP address 1.1.1.2, which is the IP address of your system.

4. Go to your PC and follow these instructions:

For Windows 95/98:

   a. Right-click the **Network Neighborhood** icon, and then right-click **Properties**.

   b. When the **Network** box appears, select the **Configuration** tab, then **TCP/IP**, and then select the **IP Address** tab. Make sure the **Specify an IP address** button is selected.

   c. Enter the following information:

      – IP address = 1.1.1.3

      – Subnet mask = 255.255.255.0

   d. Then click **OK**.

For Windows NT 4.0:

a. Right-click the **Network Neighborhood** icon, and then right-click **Properties**.

b. When the **Network** screen appears, select the **Protocols** tab, then double-click **TCP/IP Protocol.**

c. Select the **IP Address** tab. Make sure the **Specify and IP Address** button is selected.

d. Enter the following information:

- IP address = 1.1.1.3
- Subnet mask = 255.255.255.0

e. Then click **OK.**

For Windows 2000:

a. Right-click the **My Network Places** icon, and then right-click **Properties**.

b. In the **Network and Dial-up Connections** window, right-click **Local Area Connection**, and select **Properties**.

c. In the **Local Area Connection Properties** window, double-click **Internet Protocol** (**TCP/IP).**

d. In the **Internet Protocol (TCP/IP) Properties** window, make sure the **Use the following IP address** button is selected.

e. Enter the following information:

- IP address = 1.1.1.3
- Subnet mask = 255.255.255.0

f. Then click **OK**.

5. Restart your PC and insert the update CD into your drive. Access the **Sofupdate.exe** file, as follows:

- From the Update CD: Insert the update CD into your drive.
- From the Polycom Web site: 1. Go to the software download center at www.polycom.com. 2. Locate your product name and provide the required information. 3. Run the Softupdate application to download the latest software and

update your system. Note that you need to decompress the file before you can run the Softupdate application.

6. Double-click the **Softupdate.exe** icon to open the application.
7. When the application opens, click the **Softupdate** button.
8. Enter the IP address of your system in the dialog box that appears. If you have an administrative password, enter it here and click **OK**. If you don't have a password, leave it blank and click **OK**.
9. Softupdate will locate your system and provide basic configuration information. To delete your existing address book and files, check the appropriate boxes.
10. Click the **Continue** button.
11. As the software is being upgraded, you will be informed of its progress. When it is finished, click the **OK** button. The system will automatically reboot. Your system software has been loaded.
12. If you have purchased an MP upgrade key for multipoint calls, please refer to Upgrading the System for Multipoint Calls on page 55 for instructions on entering the key.

Updating System Software Remotely

Your reseller can update your system software remotely by calling your system and downloading the new version to your system. The process takes approximately 10 to 15 minutes in a 2 x 64 kbps call. Follow these steps to remotely upgrade your system:

1. Contact your reseller to have the software update transmitted to your system.
2. Give the reseller your Software Update Password and the Admin Password (if entered) for your system. These passwords can be found on the **System Info > Admin Setup > Security** screen. They are implemented to prevent unauthorized access to your system.
3. The reseller will place a call to your system and download the software to your system. You will see a **Remote Software Update** screen on your system. This screen will keep you

informed of the progress of your update. Do not turn your system off during this process.

Note

The software update application will terminate if there are too many errors on the communication line. The system you are updating will revert back to the previous software version. If your software does not update, try using a lower data rate.

4. Once the software upgrade process completes, your system will automatically restart and the main calling screen will appear. If you have purchased an MP upgrade key for multipoint calls, please refer to Upgrading the System for Multipoint Calls on page 55 for instructions on entering the key.

Upgrading the System for Multipoint Calls

If you have purchased an MP upgrade key from Polycom, you can upgrade your ViewStation EX to support multipoint calls.

For more information about making multipoint calls, please refer to Multipoint Calls (Optional).

To enter the MP key:

1. From the main calling screen, go to **System Info>Admin Setup>Software/Hardware>System Options**.
2. Enter your multipoint key.
   When MP is enabled, the **Multipoint** field changes from **Disabled** to **Enabled**.

Note

Press **Select** on the remote to make the keyboard appear. Your key will be 20 characters long. Enter five characters in each box. The cursor will move automatically to the next box as you add

© Polycom, Inc. 2003

characters. When you are finished, select **Save** and then **Menu** to return to the main calling screen.

---

3. You are now ready to place a multipoint call with your ViewStation EX system.

3

Initial System Setup

This chapter describes the initial system configuration screens that you see when you power on your ViewStation EX for the first time.

Topics in This Chapter

The following topics are included in this chapter.

Topic	Description	Page
First System Screens	This section describes the first system screens that are displayed during the initial out-of-box configuration.	59
Initial Setup for IP (H.323) Calls	This section describes the initial IP-specific screens needed to configure basic network settings.	64
Initial Setup for ISDN (H.320) Calls	This sections describes the initial screens used to configure your ISDN connection (V.35/RS-449/RS-530 or BRI)	68
Final Out-of-Box System Setup Screens	The screens that complete the initial configuration sequence are covered in this section.	77
Setting up the Firewall	This section indicates where to find the appropriate firewall configuration information, if you need to set up a firewall.	79
Verifying Initial Setup	This section provides information about placing a test call and checking network connectivity.	80

© Polycom, Inc. 2003

Once you have powered on the ViewStation EX system, a series of setup screens appear on your television monitor, leading you through the initial configuration process, which is described in the following sections.

Note

All procedures detailed in these sections must be followed in order to minimize system failures.

For the latest information about the software on your system, refer to your system's *Read Me First and Release Notes*.

First System Screens

The first system screens include the following:

- ❑ **Welcome/Language**. See Selecting the Language on page 59.
- ❑ **How to Select Menu Items**. See Selecting Menu Items with the Remote Control on page 60.
- ❑ **System Name**. See Setting up System Name and Country on page 61.
- ❑ **Country.** See Setting up System Name and Country on page 61.
- ❑ **Call Preference.** See Setting your Call Preferences on page 62.

Selecting the Language

The first setup screen to appear on your television monitor is the **Welcome** screen.

Figure 3-1. Welcome (Language) Screen

To select the language you would like to see on the ViewStation EX system:

1. Press the arrow buttons on the remote control to highlight a language.

© Polycom, Inc. 2003

2. Then press the SELECT button on the remote control to go to the next screen.

Note

To make selections with the remote control, aim the remote control at the remote control IR detector or at the **Clarity by Polycom** logo on the front of the system.

Selecting Menu Items with the Remote Control

The following screen explains how to select ViewStation EX items on your television monitor. Press the SELECT button on the remote control to proceed to the next screen.

Figure 3-2. How to Select Menu Items Screen

Tip

To return to a previous screen, press the MENU button on the remote control or use the arrow buttons on the remote control to highlight the **Menu** icon and press the SELECT button on the remote control.

Setting up System Name and Country

System Name

Use the **System Name** screen to name your system. Naming your system makes it easy to find your ViewStation EX on the LAN when it is connected.

System names can be up to 34 characters in length. The first character has to be numeric or alphabetic, including foreign language characters.

System Name
Please enter the name of your site or the name of your system by using the remote control and the keyboard below.
Select ENTER when you are done.
Jw_fx

Figure 3-3. System Name Screen

To enter the **System Name**, you need to access the on-screen keyboard.

To access the on-screen keyboard:

1. Press the SELECT button on the remote control.
2. Use the arrow buttons to move around the keyboard and press the SELECT button to select a letter.
3. When you have finished making your entries on this screen, review the entries for accuracy, then select the key ◄┘ on the on-screen keyboard.
4. Highlight the **Save** icon and press the SELECT button on the remote control to save the system name.

© Polycom, Inc. 2003

Country

On the **Country** screen, select the country in which your system is installed.

Country:
Please select your country by using the arrow keys on your remote control:
Canada
France
Germany
United Kingdom
United States
Please press the center SELECT button to continue. Press the MENU button to go to the previous screen.

Figure 3-4. Country Screen

Setting your Call Preferences

On the **Call Preferences** screen, select the types of calls you can place:

- **V.35/RS-449/RS-530 Video Calls** or **ISDN Video Calls**:
  - **V.35 Video Calls**—This option is available when your system is connected to a V.35/RS-449/RS-530 network.
  - **ISDN Video Calls (H.320)**—This option is available when your system is connected to a BRI network.
- **LAN/Internet Calls (H.323)**—Select this option if you plan to place IP calls.

Note

If you enable this option later (after this initial system setup), your system resets itself automatically and takes you through the initial setup screens described in this section. Existing system information is not erased during this process.

- **Display IP Dialing Extension**—This extension is needed when you place a call through a Gateway. When this option is selected, the **Extension** field is visible in the **Video Call** screen. For more information about Gateway configuration, refer to the section Configuring the Gateway and Gatekeeper on page 96.

If the **ISDN Video Calls** and **LAN/Internet Calls** options are both enabled on the **Call Preferences** screen, the following option becomes visible:

- **Allow H.320 and H.323 Mixed Calls**— This option allows the administrator to disable the ability to place or received mixed multipoint calls for security reasons. For more information about Mixed Calls, refer to Mixed Protocol Dialing.

Note

A system with a V.35 network interface does not support mixed calls at this time.

When you have finished, review your selection, then highlight the **Save** icon and press the SELECT button on the remote control.

OneDial Preferences

This screen appears if the **ISDN Video Calls** and **LAN/Internet Calls** options are both enabled on the **Call Preferences** screen. The **OneDial Preferences** screen lets you decide how the system will place the call.

Under **Primary Call Type Choice**, select the appropriate option for your configuration. Three options are available:

- **ISDN**—It lets you place the call using the ISDN number.
- **IP**—It lets you place the call using the IP number.
- **Manual**—This options prompts the user.

When **Primary Call Type Choice** is set to **Manual**, the user is asked to place the call using either IP or ISDN.

© Polycom, Inc. 2003

Initial Setup for IP (H.323) Calls

The initial IP configuration screens include the following:

- **H.323 Setup.** See Setup for IP (H.323) Calls on page 64.
- **Gatekeeper**. See Setting up a Gatekeeper on page 65.

Setup for IP (H.323) Calls

The **H.323 Setup** screen appears if you have previously checked the **LAN/Internet Calls (H.323)** option on the previous screen (**Call Preference**).

The H.323 option allows you to place video calls using IP on your local area network (LAN) or wide area network (WAN). The **H.323 Setup** screen allows you to configure the H.323 name and extension that can be used to dial your system.

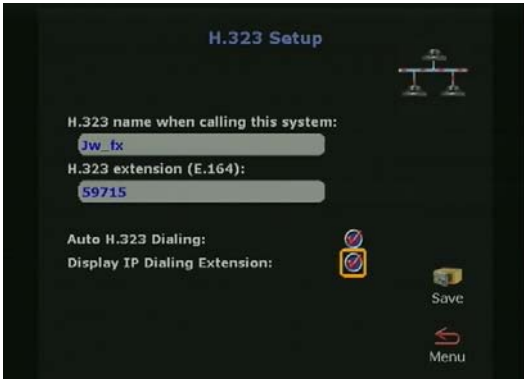

Figure 3-5. H.323 Setup Screen

- **H.323 Name when calling this system**—Your system name (previously configured in the **System Name** screen) is used to initialized your H.323 name. However, you can change it on this screen. There are no format restrictions for the H.323 name.
- **H.323 Extension (E.164)**—You can also change the extension to a number that is easy to remember. Your administrator might have specific names and extensions. If you have a Gatekeeper installed on your network, other parties can call you by using

the H.323 name or extension. The H.323 name and extension are registered with your Gatekeeper. The Gatekeeper directs the call to your system IP address.

- **Auto H.323 Dialing**—This option is enabled by default to let the system auto-detect the type of call you are placing (IP or ISDN) based on the video number format. If this option is enabled, the ISDN and H.323 fields are not visible on the **Video Phone** screen.
- **Display IP Dialing Extension**—This option was previously configured in the **Call Preference** screen. For more information, refer to Setting your Call Preferences, on page 62.

Note

For additional information about H.323, see Configuration for IP (H.323) Calls on page 93.

When you have finished, review your entries for accuracy, then highlight the **Save** icon and press the SELECT button on the remote control.

Setting up a Gatekeeper

Use the **Gatekeeper** screen to configure an IP (H.323) Gatekeeper. For more detailed information about the Gatekeeper, refer to Configuring the Gateway and Gatekeeper on page 96.

Note

A Gatekeeper is not required to make an IP-to-IP LAN call. In these situations, select the **Off** option.

- **H.323 Name—**If you are registered with the Gatekeeper, this is the name that can be used to call your system.
- **H.323 Extension (E.164)**—H.323 extensions are needed for inbound calls going through a Gateway. This extension number

is associated with a specific LAN device. Incoming callers are prompted to enter the H.323 extension to access a specific LAN device behind the Gateway. This number may be assigned by the telephone company or by your network administrator.

- **Use Gatekeeper.** This option can be set to **Off**, **Specify**, or **Auto**.
  - **Off**—If you do not want to access a Gatekeeper, select this option.
  - **Specify**—To specify a Gatekeeper, select this option and enter the Gatekeeper's IP address in the **Gatekeeper IP Address** field. This information is available from your network administrator.
  - **Auto**—To have your system automatically find an available Gatekeeper, select the **Auto** option.
- **Gatekeeper IP Address**—This address is provided by your network administrator.
- **Preferred alias**—This is a valid number that outside systems can use to reach your system. Your preferred alias is generally the same number as the H.323 extension.
- **Outbound Call Route**—The **Outbound Call Route** via **ISDN** or **Gateway** only affects how a system dials an ISDN (H.320) call. All IP (H.323) calls are not affected by this option. Currently, a system can dial an ISDN call through **ISDN** or **Gateway** as long as it has native ISDN capability and the system is registered with a Gatekeeper. Select the appropriate option depending on your network configuration:
  - **Gateway**: Select this option if your outbound call needs to be handled by a Gateway. This information can be obtained from your network administrator.
  - **ISDN**: Select this option if your system is connected to an ISDN line. **ISDN** is the default. When you dial through ISDN, the ISDN call is made by using ISDN natively. All the prefix or suffix on the **Gateway** screen are irrelevant.

    When you dial through Gateway, the ISDN call is made by using Gateway, not ISDN natively. If there is prefix or suffix on the **Gateway** screen for Gateway calls, it should be included when a call is made.

When you have finished, review your entry for accuracy, then highlight the **Save** icon and press the SELECT button on the remote control.

© Polycom, Inc. 2003

Initial Setup for ISDN (H.320) Calls

If you have an ISDN connection, you will need to configure the appropriate interface (V.35/RS-449/RS-530, or BRI). Refer to the appropriate ISDN network interface section:

- **V.35/RS-449/RS-530.** See Setup for the V.35/RS-449/RS-530 Network Interface on page 68.
- **BRI.** See Setup for the Quad BRI Network Interface on page 74.

Setup for the V.35/RS-449/RS-530 Network Interface

If you have a V.35/RS-449/RS-530 network interface module, the following screens are designed to help you with your V.35/RS-449/RS-530 network configuration:

- **Video Network.** See Setting Video Network Options on page 69.
- **Dialing Speeds.** See Selecting Dialing Speeds on page 70.
- **Broadcast Mode.** See Setting Broadcast Mode Options on page 70.
- **Advanced Dialing.** See Setting Advanced Dialing Preferences on page 71.
- **Video Numbers.** See Entering V.35/RS-449/RS-530 Video Numbers on page 73.

Setting Video Network Options

Use the **Video Network** screen to set the parameters for your V.35/RS-449/RS-530 video network.

Figure 3-6. Video Network Screen

You can set the following options on this screen:

- **RS-366 Dialing**—Enable this option if you want to call from the system through the DCE connection to the far-end videoconferencing system. Disable this option if you are using your DCE to dial the call or if you have a dedicated connection to the far site.

  Note

  If the **RS-366 Dialing** option is enabled, you need to select **Dialing Speeds** on this screen (see the following Selecting Dialing Speeds section).

- **V.35 Ports Used**—Select 1 if you are placing only 1-channel calls. Select 1+2 if you are placing 2 x 56 Kbps or 2 x 64 Kbps channel calls.

- **Dialing Protocol**—RS-366 appears as the dialing protocol if the **RS-366 Dialing** option is enabled. If the **RS-366 Dialing** option is disabled, the **Dialing Protocol** does not appear.

- **Broadcast Mode**—Enable or disable H.331 **Broadcast Mode** if the system is connected to the network via satellite.

© Polycom, Inc. 2003

When you have finished, highlight the **Save** icon and press the SELECT button on the remote control.

Selecting Dialing Speeds

If you enabled **RS-366 Dialing**, select the **Dialing Speeds** icon in the **Video Network** screen.

1. Select the dialing speeds on this screen. The default speeds are 2 x 64 Kbps, 256 Kbps, 384 Kbps, 512 Kbps, and 768 Kbps.
2. To add or remove speeds, scroll through the data rates and press the SELECT button on the remote control to select your preferred dialing speeds; a red check appears when a dialing speed is selected.

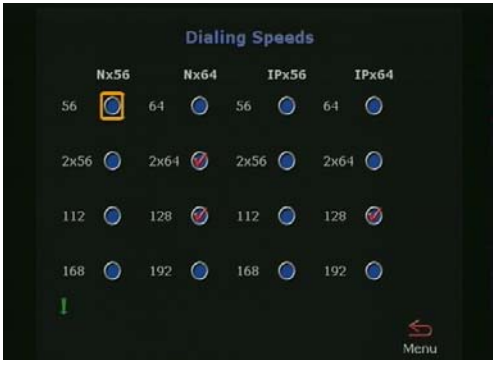

Figure 3-7. Dialing Speeds Screen

Note

The selected dialing speeds apply only to RS-366 calls. Nx56 and Nx64 are for H.320 calls, while IPx56 and IPx64 are for H.323 calls. For non-dialed calls, the call speed is determined by the DCE.

Setting Broadcast Mode Options

If you enabled the **Broadcast Mode** option on the **Video Network** screen, the **Broadcast Mode Setup** icon appears. Selecting this icon takes you to the **Broadcast Mode** screen. For more information on

the **Broadcast Mode** screen, refer to Setting up Satellite (H.331) Broadcast Mode on page 105.

Setting Advanced Dialing Preferences

If you enabled **RS-366 Dialing**, the dialing prefixes and suffixes are set for calls from the system on the **Advanced Dialing** screen.

The **Advanced Dialing** screen lets you select the Calling Profile associated with dialing through a DCE.

Figure 3-8. Advanced Dialing Screen

Calling profiles for several manufacturers are included in your system.

© Polycom, Inc. 2003

To select and modify the calling profiles:

1. Select the **Calling Profile** field**.** The following calling profile list appears**.**

Figure 3-9. Advanced Dialing Screen (Calling Profile List)

2. Select the appropriate equipment/manufacturer from the drop-down list and press the SELECT button on the remote control.
3. When you have finished, review your entry. The Prefix or Suffix information (depending on the equipment name that you selected) is now visible on the **Advanced Dialing** screen.
4. Highlight the **Save** icon and press the SELECT button on the remote control.

Note

You have to enter the information only once on the **Advanced Dialing** screen. When you place a call, there is no need to enter the prefix again—simply select the preferred dialing speed, and your system enters the proper prefix.

Dialing Prefix and Suffix Information. Dialing prefixes are numbers and characters that are sent to your DCE equipment before sending the number dialed.

Dialing suffixes define the dialing speed of the DCE equipment. This provides the users with the ability to select the dialing speed when placing a call.

Prefixes and suffixes are a function of your DCE. Please consult the DCE user guide for additional information on setting dialing profiles.

Entering V.35/RS-449/RS-530 Video Numbers

If you enabled **RS-366 Dialing**, the **Video Numbers** screen appears.

Figure 3-10. Video Numbers Screen

To enter video numbers:

1. Enter the numbers that other sites can dial to call your system.
2. When you have finished, review your entry, then highlight the **Save** icon and press the SELECT button on the remote control.

   For additional information about V.35/RS-449/RS-530 configuration, see Advanced V.35/RS-449/RS-530 Network Interface Configuration on page 103.

The initial configuration process specific to the V.35/RS-449/RS-530 network interface is complete. To continue with the initial configuration process, skip to Final Out-of-Box System Setup Screens on page 77.

Note

If you disabled **RS-366 Dialing**, you are operating in direct connect mode and the **Video Numbers** screen will not be displayed.

© Polycom, Inc. 2003

The initial configuration process specific to the V.35/RS-449/RS-530 network interface is complete. To continue with the initial configuration process, skip to Final Out-of-Box System Setup Screens on page 77.

Setup for the Quad BRI Network Interface

If you have a Quad BRI network interface connected to your system, the following initial BRI configuration screens are displayed:

- **ISDN Video Numbers.** See Entering ISDN Video Numbers on page 74.
- **Auto Detect SPIDs.** See Entering Service Profile Ids Manually on page 75.
- **ISDN Switch Protocol.** See Selecting the ISDN Switch Protocol on page 76.

Entering ISDN Video Numbers

On the **ISDN Video Numbers** screen, enter the area code or the STD code and ISDN number assigned to your system. Your service provider should have given you this number when you purchased your ISDN line.

When you are finished, highlight the **Save** icon and press the SELECT button on the remote control.

Figure 3-11. ISDN Video Numbers Screen

Entering Service Profile Ids Manually

On the **Auto-Detect SPIDs** screen, enter the **Service Profile ID** numbers for your system. If you are connected to an internal phone system (PBX), you may not need to enter SPIDs.

If the system is unable to find your SPIDs, make sure you are connected and that you entered your ISDN numbers correctly.

Figure 3-12. Auto Detect SPIDs Screen

© Polycom, Inc. 2003

Selecting the ISDN Switch Protocol

Select the ISDN switch protocol according to the ISDN switch type used with the ISDN network.

ISDN Switch Protocol:
Please select your switch protocol.
NI-1
AT&T 5ESS Multipoint
AT&T 5ESS Pt-to-Pt
Nortel DMS-100
Standard ETSI Euro-ISDN
Please press the center SELECT button to continue. Press the MENU button to go to the previous screen.
Menu

Figure 3-13. ISDN Switch Protocol Screen

Note

For more information about advanced BRI setup, see Advanced Quad BRI Network Interface Configuration on page 111.

The initial configuration process specific to the BRI network interface is complete. To continue with the initial configuration process, skip to Final Out-of-Box System Setup Screens on page 77.

Final Out-of-Box System Setup Screens

The following screens complete the initial system configuration of your system.

- ❑ **Outside Line Calls.** See Configuring for Outside Line Calls on page 77.
- ❑ **Telephone Numbers.** See Adding a Telephone Number on page 78.
- ❑ **Administrator Password.** See Setting the Administrator and Meeting Passwords on page 78.

Configuring for Outside Line Calls

If your system is on a PBX, enter the number to dial for outside line access on the **Outside Line Calls** screen.

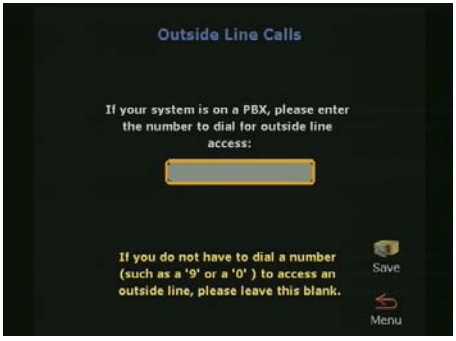
Outside Line Calls
If your system is on a PBX, please enter the number to dial for outside line access:
If you do not have to dial a number (such as a '9' or a '0') to access an outside line, please leave this blank.
Save
Menu

Figure 3-14. Outside Line Calls Screen

This number is usually 9 or 0. The system automatically dials this number before your video numbers.

Leave this screen blank if you do not need to dial a number to access an outside line. When you have finished, highlight the **Save** icon and press the SELECT button on the remote control.

© Polycom, Inc. 2003

Adding a Telephone Number

On the **Telephone Numbers** screen, enter the number of the analog telephone line that is connected to your system.

Telephone Numbers
Please enter your area Code:
Please enter the number of the telephone line connected to this system:
Please enter the number of an additional telephone in this room:
If there are no additional telephone lines connected to your system skip this page. Select SAVE to continue. Press the MENU button to go to the previous screen.
Save
Menu

Figure 3-15. Telephone Numbers Screen

You can enter the number of another telephone in the same room as the ViewStation EX system. When you have finished, highlight the **Save** icon and press the SELECT button on the remote control.

Setting the Administrator and Meeting Passwords

This screen contains an initial administrator password, which is your system's serial number. It also has a meeting password that is randomly generated.

The administrator password allows access to all the **Admin Setup** screens using the user interface or the Web interface.

You can change, remove, or keep the initial password.

To change the administrator password:

1. Highlight the password field using the remote control.
2. Backspace over the initial password (the system's serial number) using the left arrow key on the remote control.
3. When the field is empty, start entering your new password as follows:

   Enter numbers using the remote control's keypad.

Enter letters and characters as directed below:

a. Press the SELECT button on the remote control: the on-screen keyboard appears.

b. Highlight each letter and/or character from the keyboard using the remote control arrow keys.

c. Select the letter or character by pressing the SELECT button on the remote control.

d. When you are done with your selection, select the **Enter** key (bottom right-most key) on the on-screen keyboard using the remote control.

4. Select the on-screen **Save** icon to save your changes.

Setting up the Firewall

If your system is behind a firewall, please refer to the **a**ppropriate section in the *Integrators' Reference Manual for ViewStation EX, ViewStation FX, and VS4000* to find out how to configure your system and your router.

© Polycom, Inc. 2003

Verifying Initial Setup

After the initial system configuration is complete, the system returns to the main menu.

The main screen is the starting point for everything you do on the ViewStation EX. From the main screen you can access the **Video Phone** screen (by selecting the **Video Call** icon), the **Address Book**, all the **System Info** screens, and the **Telephone**.

The following information explains how to place a test call, and how to interpret the main screen's network connectivity indicators.

Placing a Test Call

Once you have configured your ViewStation EX, you can place a test call to one of the numbers that have been pre-programmed into the Address Book of your ViewStation EX.

To place a test call:

1. Highlight the **Address Book** icon on the main screen and press the SELECT button on the remote control.
2. Highlight the **Address Book** icon again and press the SELECT button on the remote control.
3. Use the arrow buttons on the remote control to select a location and press the SELECT button on the remote control to place the call.

Checking the Network Connectivity Indicators on the Main Screen

Network connectivity indicators are also displayed on the main screen (see the following section for more information).

Note

IP Address and ISDN Number. If you press down the feet on the remote control, the IP address and/or the ISDN number of the system appear at the bottom of the main page. This is a fast and convenient way to view your IP address or ISDN number.

Network Line Check Indicators

Every time you power on your system, a numbered yellow indicator appears for every network line below the **Video Call** icon. If it is yellow, it indicates that the system is checking to see if the network lines are connected.

If the indicator changes to a green up arrow, system has found the network line.

If the indicator changes to a red down arrow, the system was unable to find the network line. In this case, check your network connection and verify that you entered the numbers correctly.

Figure 3-16. ViewStation EX Main Screen

ISDN Line Check Indicators

The system checks the configuration of the ISDN lines every time you power them on. As the system confirms each line, another line

© Polycom, Inc. 2003

indicator appears on the ISDN check icon. Once the first ISDN line (line 1) connects, you can make a call.

Once the check is complete, and if the ISDN lines are properly configured, the indicator disappears. If it does not disappear, you should check the physical connections and the configuration of the ISDN lines.

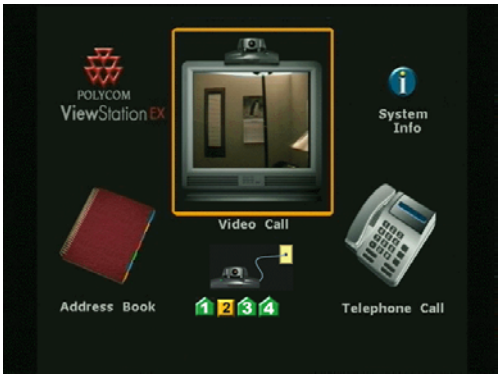

Figure 3-17. Main Screen (showing network conditions)

Gatekeeper Status Indicators

Depending on the option selected on the **Gatekeeper** screen, one of the following status indicators will appear on the main screen every time you power on your system:

- **Yellow Icon**—The system is currently looking for the Gatekeeper, but has not found it yet.
- **Red Icon**—The system has detected the Gatekeeper, but it is not allowed to register with the Gatekeeper.
- **Green Icon**—The system has found the Gatekeeper and it is registered with the Gatekeeper.
- **No Icon**—No Gatekeeper was specified or set to **Off** in the **Gateway & Gatekeeper** screen (**System Info > Admin Setup > LAN/H.323 > H.323 > Gateway & Gatekeeper**).

4

Advanced Configuration for your Network Environment

In this chapter, you will find advanced network configuration information which can be used to enhance your videoconferencing and network environment, or to change specific options set up during the ViewStation EX system's initial out-of-box configuration.

Topics in This Chapter

The following topics are included in this chapter.

Topic	Description	Page
Configuration of the LAN Settings	This topic explains how to configure the LAN and Intranet settings, how to set advanced LAN options, and how to configure the firewall and LAN connection.	85
Configuration for IP (H.323) Calls	This topic contains advanced configuration information needed to set up your ViewStation EX for IP calls. It describes how to configure the Gateway and Gatekeeper information within the frame of OneDial.	93
Configuration for ISDN (H.320) Calls	The advanced configuration screens for the V.35/RS-449/RS-530 and BRI network interfaces are explained in this topic.	103

© Polycom, Inc. 2003

Topic	Description	Page
Configuration of the Global Address Book	This topic describes how to configure the Global Address server, Global Address Book preferences, ISDN private numbers, and dialing rules.	119
Configuration for the Global Management System	This topic describes how to set up your system to be managed remotely by the Global Management System.	130
Configuring Streaming Preferences	This topic covers the configuration options needed to set up your system for streaming.	136
Configuring SNMP Preferences	This section contains information about the different SNMP options.	138
Configuring Quality of Service	This topic contains information about type of service and dynamic bandwidth.	140

Configuration of the LAN Settings

This section contains advanced configuration information needed to set up the LAN options of your ViewStation EX system.

The following LAN and Intranet configuration screens are described in detail in this section:

- **LAN & Intranet**. See Configuring LAN and Intranet Settings.
- **LAN Settings.** See Selecting Advanced LAN Settings.
- **Firewall & LAN Connection.** See Configuring Firewall and LAN Connection Settings.

Tip

When you have finished editing the information on a screen, you can save your changes and return to the previous screen in one of two ways: press the MENU button on the remote control or highlight the **Menu** icon and press the SELECT button on the remote control.

Configuring LAN and Intranet Settings

The **LAN & Intranet** screen allows you to view LAN settings information and to enter or modify information needed to access your LAN.

To access the LAN & Intranet screen:

Select **System Info > Admin Setup > LAN/H.323 > LAN/Intranet > LAN & Intranet**.

© Polycom, Inc. 2003

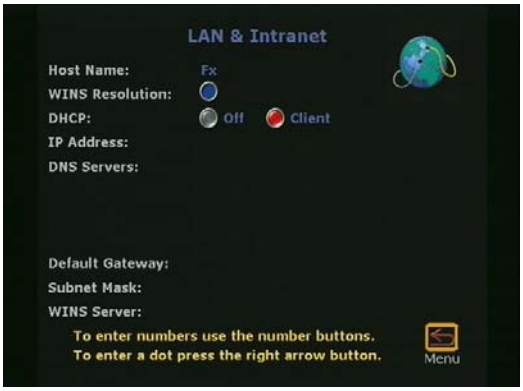

Figure 4-1. LAN & Intranet Screen

On this screen, you can configure the following options:

- **LAN Host Name**—The host name is the DNS name given to your system by the network administrator. This name can be used in place of an IP address when dialing IP calls.

  A LAN host name is required. It cannot be deleted or left blank. When the LAN host name is changed, the system prompts the user for a reboot.

  The LAN host name follows these format rules:

  - It starts and ends with an English letter (A-a to Z-z). It is not case sensitive.
  - It ends with an English letter (A-a to Z-z) or a number (0 to 9).
  - The characters inside the LAN host name can be English letters, numbers, and hyphen.
  - It cannot be longer than 63 characters.

  The initial LAN host name is initialized as follows during the out-of-box setup sequence:

  - If the system name is a valid LAN host name (meaning that it follows the preceding format rules), then the LAN host name is the same as the system name.
  - If the system name is not a valid LAN host name (meaning that it does not follow the preceding format rules), the invalid characters are removed from the system name to

obtain a valid LAN host name. If the resulting string is empty, the default LAN host name is Admin.

- **WINS Resolution**—WINS resolution (Windows Internet Name Service) allows a network device name (the name of your ViewStation EX system) to be resolved to an IP address in a routed environment.

  When this option is selected, the system sends requests to the WINS server for WINS name resolution.

- **DHCP**—The Dynamic Host Configuration Protocol allows a server to dynamically assign IP addresses to devices on a LAN. You can set the **DHCP** option to **Off, Client,** or **Server**.

  - **Off:** When **Off** is selected, the IP address, DNS servers, default gateway, subnet mask, and WINS server information must be entered as static addresses. These addresses are permanent until they are manually changed.

  - **Client:** If your system is connected to a LAN, enable the **Client** option. When this option is selected, your company's DHCP server automatically assigns an IP address, a DNS server address, a default gateway, a subnet mask, and a WINS server address**.** When **Client** is enabled, the options **IP Address**, **DNS Servers, Default Gatewa**y, **Subnet Mask,** and **WINS Server** cannot be changed.

  - **Server:** If you are connecting the system directly to a PC that is not connected to the network, enable the **Server** option. When this option is selected, the system's DHCP server can assign up to 12 IP addresses ranging from 1.1.1.3 to 1.1.1.14 to network devices on your LAN.

    The **Server** button is visible on the **LAN & Intranet** screen only if the option **Allow System to be a DHCP Server** has been previously enabled in the **System Info** screen of the Softupdate application.

    For more information about enabling the option **Allow System to be a DHCP Server,** refer to Upgrading Software on page 45.

© Polycom, Inc. 2003

Warning

Do not select the **Server** option if your system is on a LAN with other computers. If you do, the system provides IP addresses to the other computers on the LAN even though the LAN already has a DHCP server. Your system administrators may have to repair any network problems this causes.

- **IP Address**—If the **DHCP Client** option is selected, an IP address is automatically assigned to the system from your network server and you cannot make any change to this field. If the **DHCP Off** option is selected, you need to enter a static IP address for your system. The IP address can be obtained from your network administrator or your IT department.

- **DNS Servers**—DNS servers are computers which translate domain names (example: www.polycom.com) into IP addresses.

  If the **DHCP Client** option is selected, the DNS server addresses are automatically filled in and you cannot make any change to this field. If the **DHCP Off** option is selected, you need to enter the DNS server addresses manually. These addresses can be obtained from your network administrator or your IT department.

- **Default Gateway**—The default Gateway is a router on the local network. Its main task it to act as an interpreter between two systems that do not use the same communications protocol, data formatting, and other network functions. Your system must go through this router to access destinations outside of its network.

  If the **DHCP Client** option is selected, the Default Gateway address is automatically filled in and you cannot make any change to this field. If the DHCP **Off** option is selected, you need to enter the address manually. This information can be obtained from your network administrator or your IT department.

- **Subnet Mask**—A subnet mask is a number that identifies a subnetwork so that an IP address can be shared on a local

network. This is the subnet mask of the LAN to which your system is connected.

If the **DHCP Client** option is selected, the subnet mask address is automatically filled in and you cannot make any change to this field. If the **DHCP Off** option is selected, you need to enter the address manually. The subnet mask can be obtained from your network administrator or your IT department.

- **WINS Server**—This is a Windows NT computer that resolves computer names to IP addresses in a routed environment. Find out from your network administrator or your IT department whether you need a WINS Server IP address or not.

Selecting Advanced LAN Settings

You can select the LAN port on your system and set or change its LAN speed and duplex mode on the **Advanced LAN Settings** screen.

To access the Advanced LAN Settings screen:

Select **System Info > Admin Setup > LAN/H.323 > LAN/Intranet > Advanced LAN Settings**.

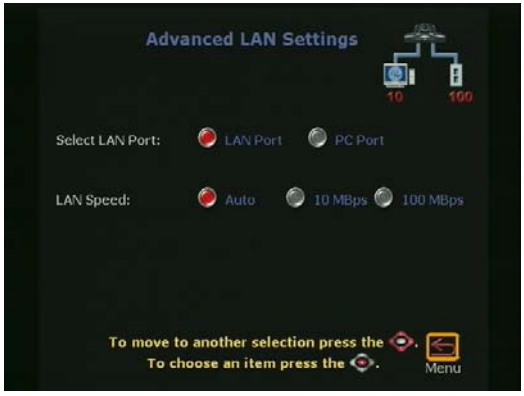

Figure 4-2. Advanced LAN Settings Screen

On the **Advanced LAN Settings** screen, you can select a LAN port and a LAN speed as described below:

Note

Before you select a LAN speed and duplex mode, find out from your network administrator what speed and duplex mode are supported by the switch to which your system is connected.

- **Select LAN Port**—The ViewStation supports a LAN port and a PC port:
  - The **LAN Port** option represents the LAN port on the back of your system. This port is used to directly connect your system to your LAN network.
  - The other port, the **PC Port**, can be used to connect a device to the LAN network through your system (which, in this case, acts as a hub), or to directly connect a device such as a PC to a system *not* on the LAN network.
- **LAN Speed**—This option can be set to **Auto, 10 MBps**, or **100 MBps** (megabits per second).
  - **Auto:** When this option is selected, the network switch to which the system is connected automatically negotiates the LAN speed and duplex mode.
  - **10 MBps** or **100 MBps**: When one of these LAN speeds is selected, a duplex mode must be selected (see **Duplex Mode** below).
- **Duplex Mode**—This option can be set to **Auto, Full,** or **Half.**
  - **Auto:** When this option is selected, the network switch to which the system is connected automatically negotiates the duplex mode.
  - **Full:** This duplex mode allows for bi-directional, simultaneous, two-way communications.
  - **Half:** This duplex mode allows for bi-directional data transmission, but not at the same time.

Configuring Firewall and LAN Connection Settings

The **Firewall & LAN Connection** screen allows the LAN manager to configure firewall options.

To access the Firewall & LAN Connection screen:

Select **System Info > Admin Setup > LAN/H.323 > LAN/Intranet > Firewall/LAN Connection**. The following screen appears:

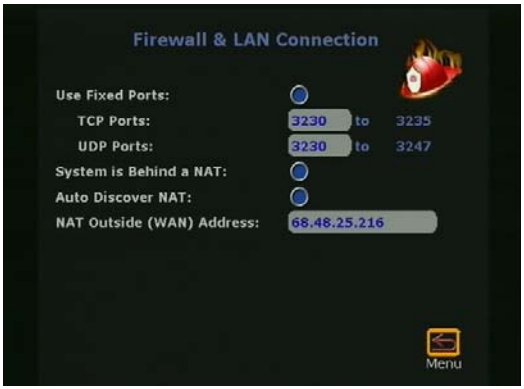

Figure 4-3. Firewall & LAN Connection Screen

In this screen, you can configure the following options:

- **Use Fixed Ports**—Specify the fixed ports assigned to the system when working with a firewall. For information on port assignments in multipoint calls, refer to Multipoint Calls and Firewall Information on page 186.

- **System is Behind a NAT**—This option instructs the system to use the IP address that appears in the **NAT Outside (WAN) Address** field as its external IP address. When using a Virtual Private Network (VPN) for your network connection, make sure that **System is Behind a NAT** is *not* selected.

  If your system is behind a NAT device that is *not* H.323 aware, then select this option. If your system *is* behind an H.323-aware NAT device, make sure the option is *not* selected or your system will not be able to make and receive calls.

- **Auto Discover NAT**—When this option is selected, the system can get its IP address from the NAT device.

© Polycom, Inc. 2003

- **NAT Outside (WAN) Address**—Specify the external IP address used by your NAT. If the system is unable to discover your external IP address automatically, you can enter it here.

Note

For more information about configuring your system to operate behind a NAT (Network Address Translation) device, refer to the *Integrators' Reference Manual for ViewStation EX, ViewStation FX, and VS4000*.

Configuration for IP (H.323) Calls

This section contains advanced configuration information needed to set up your ViewStation EX system for IP calls.

The following IP configuration screens are described in detail in this section:

- **H.323 Setup.** See Configuration for IP (H.323) Calls.
- **Dialing Speed.** See Selecting Dialing Speeds.
- **Gateway & Gatekeeper.** See Setting the Gateway and Gatekeeper.
- **Gateway Number.** See Configuring the Gateway Number.
- **Gateway.** See Selecting your Gateway Prefix and Suffix.

To access the system's IP (H.323) configuration screens:

Select **System Info > Admin Setup > LAN/H.323.**

Note

When your IP configuration is complete, you may want to place a test call. For information about placing a call, refer to Video Calls on page 148.

© Polycom, Inc. 2003

Configuring H.323 Name and Extension

The H.323 name and extension that can be used to dial your system are configured in the **H.323 Setup** screen.

To access the H.323 Setup configuration screen:

Select **System Info > Admin Setup > LAN/H.323 > H.323 > Setup**. The **H.323 Setup** screen appears.

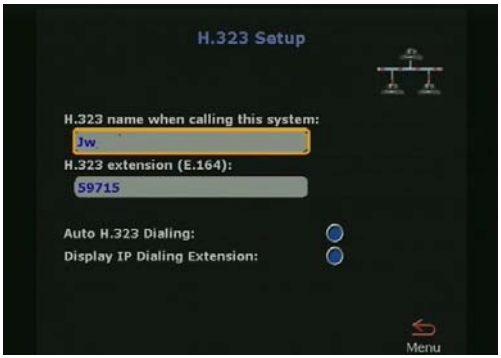

Figure 4-4. H.323 Setup Screen (configuration)

Following is a description of the options displayed on the screen:

- **H.323 Name when calling this system**—Your system name appears as your H.323 name, but you can change it on this screen.
- **H.323 Extension (E.164)**—This is the number that is needed to access a specific LAN device for incoming calls. You can change the extension to a number that is easy to remember. Your administrator might have specific names and extensions. If you have a Gatekeeper installed on your network, other parties can call you by using the H.323 name or extension. The H.323 name and extension are registered with your Gatekeeper.
- **Auto H.323 Dialing**—When this option is enabled, the system is able to automatically detect the type of call you are placing (IP or ISDN) based on the video number format. Consequently, the **ISDN** (or **V.35**) and **IP** fields are not visible on the **Video Phone** screen. This option is enabled by default.

- **Display IP Dialing Extension**—This extension is needed when placing a call through a Gateway. When this option is selected, the **Extension** field is visible in the **Video Phone** screen.

Note

It is a good idea to consult your network administrators before changing your H.323 name and extension; they might have specific names and extensions they want you to use.

Selecting Dialing Speeds

The **Dialing Speeds** lets you limit the choices that appear as speed selections. Offering a minimum number of speeds is a way to lower network traffic. The speeds that are selected in this screen will be displayed as dialing speed selections in the **Video Phone** and in the **Address Book** screens.

To access the Dialing Speeds screen:

Select **System Info > Admin Setup > LAN/H.323 > H.323 > Dialing Speeds**. The **Dialing Speeds** screen appears.

Figure 4-5. Dialing Speeds Screen

To select dialing speeds:

1. Choose the appropriate dialing speeds. The default dialing speeds are 2 x 64 Kbps, 128 Kbps, 256 Kbps, 384 Kbps, 512 Kbps, and 768 Kbps.
2. To add or remove speeds, scroll through the data rates and press the SELECT button on the remote control to select your preferred dialing speeds; a red check appears when a dialing speed is selected.

   The Nx56 and Nx64 columns list the dialing speeds available for ISDN calls.

   The IPx56 and IPx64 columns list the dialing speeds available for IP calls.

Configuring the Gateway and Gatekeeper

Overview

Gateway and Gatekeeper settings are configured in several screens:

- **Gateway & Gatekeeper.** See Setting the Gateway and Gatekeeper.
- **Gateway Number**. See Configuring the Gateway Number.
- **Gateway.** See Selecting your Gateway Prefix and Suffix.

These screens let users enter advanced Gateway and Gatekeeper information that is part of Polycom OneDial, a Polycom-proprietary feature.

Note

The configuration screens described in this section require an excellent understanding of Gateways and Gatekeepers. Configuring these options should be best handled by knowledgeable network administrators. Additionally, configuring settings in this screen has no effect if you are not using a Gatekeeper or Gateway.

A Gatekeeper is a "network administrator" that supervises the network traffic going through it. It manages functions such as address resolution, bandwidth control, admission control, etc. If your system is not registered with a Gatekeeper, it may not be authorized to place IP calls. In particular, the Gatekeeper provides address translation between aliases and IP addresses, allowing users to maintain the same telephone numbers or alias addresses regardless of changes to their network addresses.

A Gateway is a node on two networks that connects two otherwise incompatible networks. It usually performs code and protocol conversion processes. In short, it translates between IP and ISDN protocols.

About Polycom OneDial

Polycom OneDial greatly simplifies videoconferencing dialing by taking care of a number of dialing and network processes in the background. All the user has to do is select a name in the Address Book directory or enter the simplified phone number to initiate a call. This name hides complex configuration information and processes: for example, complicated numbers, prefixes, codes, network choices (IP or ISDN) and gateway and gatekeeper operations. OneDial also takes care of bandwidth renegotiation (downspeeding), alternate routing (if IP routing does not work, OneDial will attempt to do ISDN), and Conference on Demand™.

OneDial lets users from any video endpoint create instant multipoint conferences without network administrator or IT assistance by clicking a name in the Address Book. This service is provided by a combination of Polycom's products PathNavigator™ (a call processing server) and the MGC-110 or MGC-50 (multipoint control unit).

OneDial is part of PathNavigator, a call processing server that performs Gateway, Gatekeeper, and name resolution operations in the background.

For more in-depth descriptions and configuration information about OneDial and PathNavigator, refer to the *Integrators' Reference Manual for ViewStation EX, ViewStation FX, and VS4000*.

© Polycom, Inc. 2003

Setting the Gateway and Gatekeeper

The Gateway & Gatekeeper screen allows you to enter advanced H.323 information, a Gatekeeper IP address if needed, and select a route for your outbound calls.

To access the Gateway & Gatekeeper screen:

Select **System Info > Admin Setup > LAN/H.323 > H.323 > Gateway & Gatekeeper**.

Changes made in the **Gateway & Gatekeeper** screen will cause the system to automatically reset itself in order to enable the new configuration and properly register with the Gatekeeper.

Figure 4-6. Gateway & Gatekeeper Screen

On this screen, you can set the following options:

- **H.323 Name**—If you are registered with the Gatekeeper, this is the name that can be used to call your system.
- **H.323 Extension (E.164)**—H.323 extensions are needed for inbound calls going through a Gateway. This extension number is associated with a specific LAN device. Incoming callers are prompted to enter the H.323 extension to access a specific LAN device behind the Gateway. This number may be assigned by the telephone company or by your network administrator.
- **Use Gatekeeper**—The options are **Off**, **Specify**, and **Auto**.
  - **Off**: If you do not want to access a Gatekeeper, select the **Off** option.

Note

A Gatekeeper is not required to make IP-to-IP LAN calls. In these situations, select the **Off** option.

- **Specify**: To specify a Gatekeeper, select the **Specify** option and enter the Gatekeeper's IP address or name (for example, gatekeeper.companyname.usa.com) in the **Gatekeeper's IP Address** field. This information is available from your network administrator.
- **Auto**: To have system automatically find an available Gatekeeper, select the **Auto** option.

❑ **Gatekeeper IP Address**—If you have selected **Specify** under **Use Gatekeeper**, enter the Gatekeeper's IP address or name in this field.

❑ **Outbound Call Route**—The **Outbound Call Route** via **ISDN** or **Gateway** only affects how a system dials an ISDN (H.320) call. All IP (H.323) calls are not affected by this option.

Currently, a system can dial an ISDN call through **ISDN** or **Gateway** as long as it has native ISDN capability and the system is registered with a Gatekeeper. Select the appropriate option depending on your network configuration:

- **Gateway**: Select this option if your outbound call needs to be handled by a Gateway. This information can be obtained from your network administrator.
- **ISDN**: Select this option if your system is connected to an ISDN line. **ISDN** is the default.

When you dial through ISDN, the ISDN call is made by using ISDN natively. All the prefix or suffix on the **Gateway** screen are irrelevant.

When you dial through Gateway, the ISDN call is made by using Gateway, not ISDN natively. If there is prefix or suffix on the **Gateway** screen for Gateway calls, it should be included when a call is made.

© Polycom, Inc. 2003

Configuring the Gateway Number

The **Gateway Number** screen allows users to enter advanced IP information that is part of Polycom OneDial. For more information about OneDial, refer to About Polycom OneDial, on page 97.

To access the Gateway Number screen:

Select **System Info > Admin Setup > LAN/H.323 > H.323 > Gateway > Gateway Number**. The **Gateway Number** screen appears.

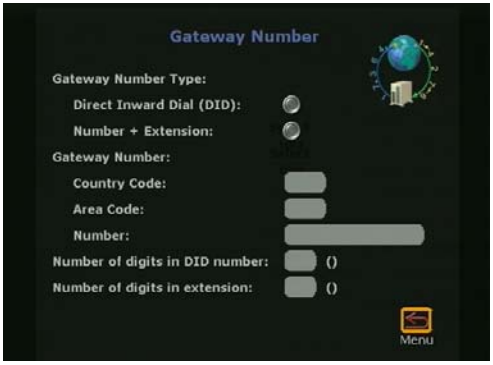

Figure 4-7. Gateway Number Screen

On this screen, you can configure the following options:

- **Gateway Number Type**
  - **Direct Inward Dial (DID)**: DID allows a caller outside a company to call an internal extension without having to go through an operator. When using DID, the number of digits in the DID is that portion of the full DID that the Gateway will be given from the ISDN service provider as the Called Party Line Identifier. This, in turn, will be passed to the Gatekeeper for address resolution. The endpoint needs to register this portion of the DID as an E.164 alias with the Gatekeeper in order for this to work.
  - **Number + Extension**: If enabled, this option allows the call to go through directly (it dials the Gateway number + ## + Extension as one number).

- **Gateway Number**—This is the number that is used by the outside world (WAN) to access your LAN. To access a specific device on the LAN, the Gateway Number needs an H.323 extension (described in Setting the Gateway and Gatekeeper, on page 98). Enter the Country Code, Area Code, and Number information.
- **Number of digits in DID number**—This is determined by your network administrator.
- **Number of digits in extension**—This is determined by your network administrator.

Selecting your Gateway Prefix and Suffix

The **Gateway** screen allows users to enter advanced Gateway information that is part of the Polycom OneDial feature. For more information about OneDial, refer to About Polycom OneDial, on page 97.

To access the Gateway screen:

Select **System Info > Admin Setup > LAN/H.323 > H.323 > Gateway (page 2)**. The **Gateway** screen appears:

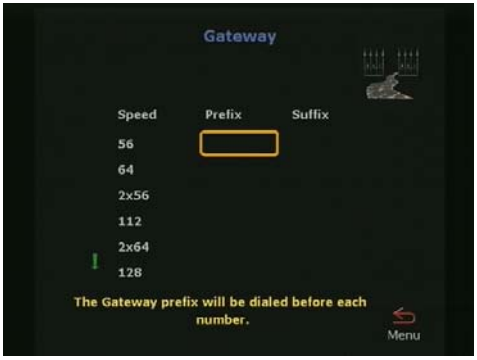

Figure 4-8. Gateway Screen

You can configure the prefix or suffix that is sent to the Gatekeeper. The prefix identifies which Gateway is used to dial a call at a particular data rate. The Gatekeeper then directs the call to the Gateway that is identified with a prefix.

For example, the system inserts the prefix “90” before the number when dialing a 256 Kbps Gateway call. The prefix tells the Gatekeeper which Gateway to use to dial the 256 Kbps call.

To determine the appropriate codes for the call speeds, consult your Gateway instruction manual. These codes are programmed into the Gateway and Gatekeeper.

Note

This information should be configured by a knowledgeable network administrator.

Configuration for ISDN (H.320) Calls

This section contains advanced ISDN configuration information for the V.35/RS-449/RS-530 and BRI network interfaces. The information displayed on the various ISDN configuration screens varies according to the network interface that is attached to your ViewStation EX system.

The configuration information is divided into:

- Advanced V.35/RS-449/RS-530 Network Interface Configuration
- Advanced Quad BRI Network Interface Configuration

Once your ISDN configuration is complete, you may want to place a test call. For information about placing a call, refer to Video Calls on page 148.

Advanced V.35/RS-449/RS-530 Network Interface Configuration

This section describes information and settings for the following advanced V.35/RS-449/RS-530 configuration screensR:

- **Advanced V.35 (Setup).** See Configuring the V.35/RS-449/RS-530 Serial Interface Control Signals, on page 104.
- **Broadcast Mode**. See Setting up Satellite (H.331) Broadcast Mode, on page 105.
- **Dialing Speeds.** See Selecting Dialing Speeds, on page 106.
- **Advanced Dialing (Calling Profile, Prefix, Suffix).** See Setting the Calling Profile, on page 108.
- **Crypto Resync Pulse**. See Enabling Crypto Resync on page 110.

Notes

The V.35/RS-449/RS-530 network interface supports the V.35, RS-449, or RS-530 protocol depending on the cable you use to

© Polycom, Inc. 2003

connect your equipment to the network interface. For information about the initial V.35/RS-449/RS-530 configuration screens, see Setup for the V.35/RS-449/RS-530 Network Interface on page 68.

Configuring the V.35/RS-449/RS-530 Serial Interface Control Signals

The ViewStation EX is designed to be compatible with the tested network equipment without any modification needed. However, if your network equipment varies from the conventional V.35/RS-449/RS-530 video implementations, use the **Advanced V.35** screen to adjust the operation of many of the signals.

To access this screen:

Select **System Info > Admin Setup > Video Network > Advanced V.35**.

Figure 4-9. Advanced V.35 Screen

The default setting for these signals is **Normal**. To invert these signals, select **Inverted**.

Note

For more detailed information about serial interface control signals, to the *Integrators' Reference Manual for ViewStation EX, ViewStation FX, and VS4000*.

Direct Connect

The following information applies only to V.35 Direct Connect setups.

Direct Connect users can choose to have the local system answer a video call when it detects data from a remote site, or hang up when it detects lack of data from the remote site. This Direct Connect signal lead would be in addition to existing V.35 signal leads that control answer/hang up call states. A description of the use of these signals can be found in the *Integrators' Reference Manual for ViewStation EX, ViewStation FX, and VS4000*.

Setting up Satellite (H.331) Broadcast Mode

The ViewStation EX with a V.35/RS-449/RS-530 network interface support H.331 broadcast mode for broadcast transmissions via satellite. In this mode, your system sends and receives audio and video without handshaking with the far-site system or H.331-compatible systems.

One system can send video and audio to many systems or other H.331-compatible systems, such as large satellite network.

Broadcast configuration parameters should be set to accommodate the lowest common denominator of the systems which are receiving the broadcast. For example, if one system in the conference supports H.261 only, broadcast should be set to H.261 to ensure all systems participate in the conference.

To access the Broadcast Mode screen:

1. Enable **Broadcast Mode Setup** in the **Video Network** screen (**System Info > Admin Setup > Video Network > Video Network**). The **Broadcast Mode Setup** satellite icon appears.

2. Select the **Broadcast Mode Setup** icon to access the **Broadcast Mode** configuration screen.

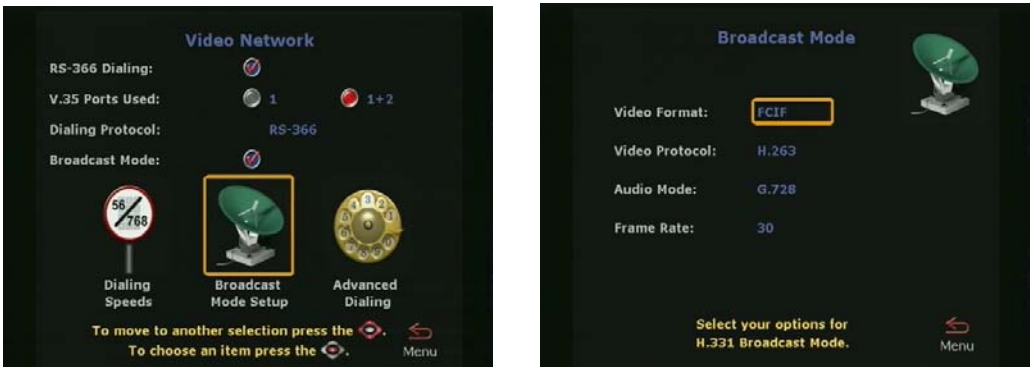

Figure 4-10. Video Network Screen and Broadcast Mode Screens

On the Broadcast Mode screen, you can set the following video and audio preferences:

- **Video Format—**Select **QCIF** to transmit Quarter Common Interchange Format (176 x 144 resolution). Select **FCIF** to transmit FCIF (Full CIF 352 x 288 resolution)
- **Video Protocol—**Select **H.261** to transmit video using the H.261 video standard. Select **H.263** to transmit video using the H.263 enhanced video algorithm. Far-end systems that support H.263 receive H.263.
- **Audio Mode—**Select the preferred audio protocol to transmit audio: G.728, G.711u, G.711A, G.722-56, G.722-48, or Off.
- **Frame Rate—**Select the preferred video frame rate for the broadcast transmission: 30 fps, 15 fps, 10 fps, or 7.5 fps.

Selecting Dialing Speeds

This screen lets you limit the choices that appear as speed selections. Offering a minimum number of speeds is a way to lower network traffic. The speeds that are selected in this screen will be displayed as dialing speed selections in the **Video Phone** and in the **Address Book** screens.

To select dialing speeds:

1. Enable **RS-366 Dialing** on the **Video Network** screen (**System Info > Admin Setup > Video Network > Video Network**).

2. Select **Dialing Speeds**. Choose the appropriate dialing speeds on the **Dialing Speeds** screen.

   The default dialing speeds are 2 x 64 Kbps, 128 Kbps, 256 Kbps, 384 Kbps, 512 Kbps, and 768 Kbps.

3. To add or remove speeds, scroll through the data rates and press the SELECT button on the remote control to select your preferred dialing speeds; a red check appears when a dialing speed is selected.

   The selected dialing speeds apply only to RS-366 calls.

   The Nx56 and Nx64 columns list the dialing speeds available for ISDN calls.

   The IPx56 and IPx64 columns list the dialing speeds available for IP calls.

   For non-dialed calls, the call speed is determined by the DCE.

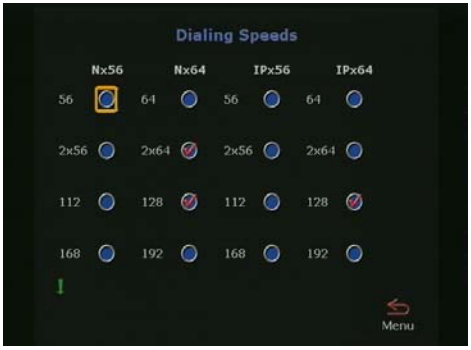

Figure 4-11. Dialing Speeds Screen

Note

A V.35/RS-449/RS-530 system cannot receive an inbound call from a non-V.35/RS-449/RS-530 system at an n x 56 k common speed. Common speeds are speeds that are divisible by both 56 and 64. These include 8 x 56k (448 or 7 x 64), 16 x 56k (896 or 14 x 64), and 24 x 56k (1344 or 21 x 64). Because a V.35/RS-449/RS-530 system cannot determine how bandwidth is allocated–it only receives the total clock speed–it does not know how these “common speed”

connections are supposed to be established. This causes problems when a non-V.35/RS-449/RS-530 system calls a V.35/RS-449/RS-530 system at one of these n x 56k common speeds (the connection is not established correctly).

Setting the Calling Profile

The **Advanced Dialing** screen lets you set or modify your calling profile. Calling profiles for several manufacturers are included in the ViewStation EX system.

If you enabled RS-366 Dialing, you need to set the dialing prefixes and suffixes associated with dialing through your particular DCE equipment and your system.

Dialing prefixes are numbers and characters that are sent to your DCE equipment before sending the number dialed.

Dialing suffixes are numbers and characters that are sent to your DCE equipment after the number is dialed.

Prefixes and suffixes are used to tell your DCE equipment at what speed to dial the call. Users have only to select the dialing speed when they place a call.

Note

Prefixes and suffixes are a function of your DCE. Please consult the DCE user guide for additional information on setting dialing profiles.

To set or modify the calling profile:

1. Make sure that **RS-366 Dialing** is enabled on the **Video Network** screen (**System Info > Admin Setup > Video Network**).
2. On the **Video Network** screen, select **Advanced Dialing**. The **Advanced Dialing** screen appears. This screen lets you

select or modify the Calling Profile associated with dialing through a DCE.

Figure 4-12. Advanced Dialing Screen (Page 1)

3. Select the **Calling Profile** field if you select or modify your Calling Profile associated with dialing through your DCE. The following calling profile list appears**.**

Figure 4-13. Advanced Dialing Screen (Calling Profile List)

4. Select the appropriate equipment/manufacturer from the drop-down list and press the SELECT button on the remote control.

5. When you have finished, review your entry. The Prefix or Suffix information (depending on the equipment name that you selected) is now visible on the **Advanced Dialing** screen.

Note

You have to enter this information only once on the **Advanced Dialing** screen. When you place a call, there is no need to enter the

prefix again; simply select the preferred dialing speed and the system enters the proper prefix.

Enabling Crypto Resync

If a cryptographic encoder/decoder is connected between the ViewStation EX system and the network, it may require a resynchronization signal from the ViewStation EX system. This is a signal indicating that the ViewStation EX system has lost video synchronization due to a network problem and requires that the cryptographic encoder/decoder resync with the equipment at the other end of the connection.

To access the Crypto Resync Pulse screen:

1. Select **System Info > Admin Setup > Security**.
2. In the **Security** screen, select the **Crypto Resync** option.The **Crypto Resync Pulse** screen appears.

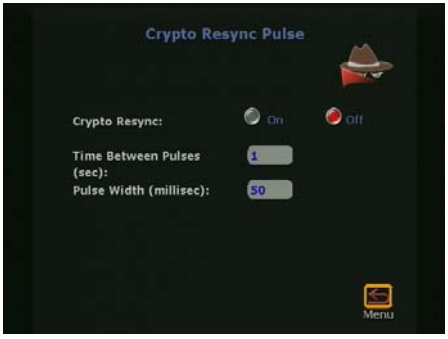

Figure 4-14. Crypto Resync Pulse Screen

You can configure the following options on this screen:

- **Crypto Resync**—This option is **Off** by default. To enable Crypto Resync, select **On**.
- **Time Between Pulses (sec)**—This option lets you set the time between pulses (in seconds).

- **Pulse Width (millisec)**—This option lets you set the pulse width (in milliseconds).

If the system is in a call, and it loses H.320 synchronization, it continuously sends the resynchronization pulses at the specified rate with the specified pulse width until H.320 regains synchronization.

The resync pulse is output on the RTS signal. If this feature is enabled, the RTS signal no longer functions as the Ready-To-Send signal.

Most installations that use encryption equipment require a custom cable. The cable should be designed to route the RTS signal from the system to the appropriate resync input on the encryption equipment. The encryption equipment can get its RTS input from the system's DTR output or by wiring this input to an always-high tie-off. In this non-dialed mode, the DTR output and RTS output act exactly the same.

Note

Refer to *Integrators' Reference Manual for ViewStation EX, ViewStation FX, and VS4000* for more information on these signals.

Advanced Quad BRI Network Interface Configuration

This section describes information and settings for a series of BRI advanced configuration screens**.** These BRI configuration screens are:

- **ISDN Video Numbers.** See Entering ISDN Video Numbers, on page 112.
- **Auto Detect Speed.** See Entering or Detecting Service Profile Ids, on page 113.
- **Audio Quality Preference.** See Setting Audio Quality Preference, on page 114.
- **Advanced Dialing.** See Setting Channel Dialing Preferences, on page 115.

© Polycom, Inc. 2003

- ❑ **Dialing Speeds.** See Selecting Dialing Speeds, on page 116.
- ❑ **ISDN Video Network.** See Modifying ISDN Video Network Information, on page 117.

Note

For information about the initial BRI configuration screen, see Setup for the Quad BRI Network Interface on page 74.

Entering ISDN Video Numbers

Use the **ISDN Video Number** screen if you need to change the area code and ISDN (BRI) video numbers that you previously set up during the out-of-box configuration.

To access the ISDN Video Numbers screen:

Select **System Info > Admin Setup > Video Network > IMUX > Numbers.** The **ISDN Video Numbers** screen appears.

Figure 4-15. ISDN Video Numbers Screen

Your service provider should have given you these numbers when you purchased the ISDN line.

To enter information on this screen:

1. Press the arrow buttons on the remote control to move between fields on the screen.
2. Use the numeric keypad on the remote control to enter numbers in a highlighted field. To enter a dot, press the right arrow button on the remote control.
3. Highlight the **Save** icon and press the SELECT button on the remote control.

Entering or Detecting Service Profile Ids

The Service Profile Ids (SPIDs) can be configured manually or automatically detected by the system using the **Auto Detect SPIDs** screen.

To access the Auto Detect SPIDs screen:

Select **System Info > Admin Setup > Video Network > IMUX > SPIDS.** The **Auto Detect SPIDs** screen appears.

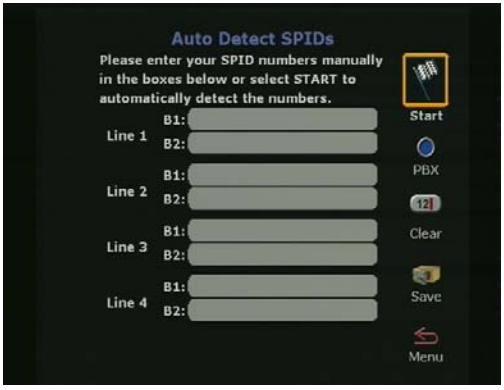

Figure 4-16. Auto Detect SPIDs Screen

Note

This screen appears only if you selected United States or Canada as your country on the country screen.

Entering the SPIDs manually. The SPIDs obtained from your network service provider can be entered manually on the **Auto Detect SPIDs** screen. If you are behind an internal phone system (PBX), you may not need to enter SPIDs.

Automatically detecting the SPIDs. If you do not have any SPID numbers, highlight the **Start** icon to have your system try to detect them automatically. This initiates a process that automatically detects the SPID numbers associated with your ISDN line. This process can take as long as ten minutes, but will usually require three minutes or less. If you are behind a PBX, select the **PBX** icon. Your system will try to locate the SPID numbers within the PBX.

If your system is unable to find your SPIDs, make sure that you are properly connected and that you have entered your ISDN numbers correctly.

Setting Audio Quality Preference

In most cases, the default setting identified during the initial system setup will be adequate for quality audio. However, the settings can be changed based on specific bandwidth requirement in the **Audio Quality Preference** screen.

The **Audio Quality Preference** screen lets you set the call speed threshold that determines which audio protocol is used. At the selected speed or lower, the system uses the G.728 audio protocol. Above the selected speed, the system uses the G.722 audio protocol.

G.722 audio delivers higher quality audio, but uses 48 Kbps of the video bandwidth. G.728 delivers telephone quality audio and uses only 16 Kbps of the video bandwidth.

Note

For more information about the G.728, G.722, and G.722.1 audio protocols, refer to Video and Audio Information in the *Integrators' Reference Manual for ViewStation EX, ViewStation FX, and VS4000.*

To access the Audio Quality Preference screen:

Select **System Admin > Admin Setup > Video Network > IMUX > Audio Quality.**

To set your Audio Quality Preference:

Use the + and - buttons on the remote control to move the slider. Changing the audio bars has no effect during an H.320 call. Note that this screen is not accessible during an IP (H.323) call.

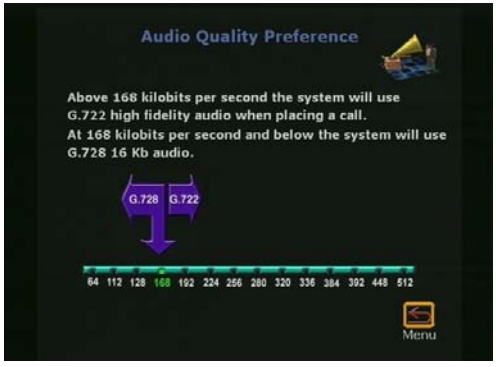
Audio Quality Preference
Above 168 kilobits per second the system will use G.722 high fidelity audio when placing a call.
At 168 kilobits per second and below the system will use G.728 16 Kb audio.
G.728
G.722
64 112 128 168 192 224 256 280 320 336 384 392 448 512
Menu

Figure 4-17. Audio Quality Preference Screen

Setting Channel Dialing Preferences

On this screen, you can choose how the ViewStation EX system will dial its channels. Channels can be dialed in parallel or one at a time.

To access the Advanced Dialing screen:

Select **System Info > Admin Setup > Video Network > IMUX > Advanced Dialing.**

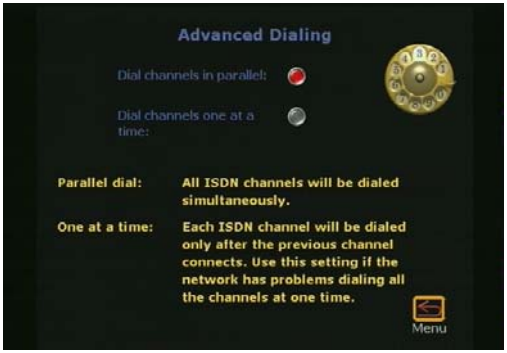
Advanced Dialing
Dial channels in parallel:
Dial channels one at a time:
Parallel dial:
All ISDN channels will be dialed simultaneously.
One at a time:
Each ISDN channel will be dialed only after the previous channel connects. Use this setting if the network has problems dialing all the channels at one time.
Menu

Figure 4-18. Advanced Dialing Screen

Select one of the following two options:

- **Dial channels in parallel**—All ISDN channels are dialed simultaneously. This is the default setting.
- **Dial channels one a a time**—Each ISDN channel is dialed after the previous channels has connected. Use this option if your network has problems dialing all the channels in parallel.

Selecting Dialing Speeds

The **Dialing Speeds** lets you limit the choices that appear as speed selections. Offering a minimum number of speeds is a way to lower network traffic. The speeds that are selected in this screen will be displayed as dialing speed selections in the Video Phone and in the Address Book.

To access the Dialing Speeds screen:

Select **System Info > Admin Setup > Video Network > IMUX > Dialing Speeds.**

Figure 4-19. Dialing Speeds Screen

The Nx56 and Nx64 columns list the dialing speeds available for ISDN calls.

The IPx56 and IPx64 columns list the dialing speeds available for IP calls.

To select dialing speeds:

1. Choose the appropriate dialing speeds.The default dialing speeds are 2 x 64 Kbps, 128 Kbps, 256 Kbps, 384 Kbps, 512 Kbps, and 768 Kbps.
2. To add or remove speeds, scroll through the data rates and press the SELECT button on the remote control to select your preferred dialing speeds; a red check appears when a dialing speed is selected.

Modifying ISDN Video Network Information

This screen allows you to modify the basic ISDN (BRI) options that were configured during the initial setup (see Setup for the Quad BRI Network Interface on page 74). These options are:

- **Country Code—**The Country Code is associated with the country where the ViewStation EX is used.

© Polycom, Inc. 2003

- **Area Code—**This is the area code or STD code used in the area where the system is located.
- **Number A—**This is the primary ISDN number assigned to the system.
- **Number B—**This is the secondary ISDN number assigned to the system.
- **ISDN Switch Protocol—**Select the appropriate ISDN switch protocols. Contact the ISDN provider to determine the ISDN switch protocol.
- **ISDN Number Prefix—**This prefix is used to access an outside line if the system is behind a PBX.

Configuration of the Global Address Book

Overview

This section describes how to configure the Global Address Book (GAB) on the ViewStation EX system.

Note

To use the GAB features, your organization must use Polycom Global Management System (GMS) software.

The Global Address Book configuration screens are accessible from the Global Address Book screen (**System Info > Admin Setup > LAN/H.323 > Global Address).** These screens are:

- **Global Address (Server).** See Configuring Settings for the Global Address Book Server, on page 120.
- **Global Address Book Preferences and Advanced Address Book Preferences**. See Setting the Global Address Book Preferences, on page 121 and Selecting the Call Type Order for OneDial Address Book Entries, on page 124.

The following screens are also available if you have a V.35/RS-449/RS-530 or BRI network interface attached to your the system.

- **Dialing Rules 1.** See Establishing Dialing Rules, on page 125.
- **Dialing Rules 2**. See Establishing Dialing Rules, on page 125.

The following screen is specific to a system with a Quad BRI network interface:

- **Private Network Number.** See Entering the Private Network Number, on page 125.

© Polycom, Inc. 2003

About the Global Address Book

The Global Address Book provides real-time directory services to let your system dial other ViewStation systems on your network, and other videoconferencing systems. The Global Address Book performs the following:

- ❑ Register systems automatically to the GAB server when they are powered up.
- ❑ Manage Address Book entries (dynamic and static addresses).
- ❑ Manage multiple Address Books.
- ❑ Support in-country and international dialing rules.
- ❑ Support ISDN and IP dialing.

The Global Address Book is part of the Global Management System (GMS). The GMS enables widespread deployment of conferencing systems by providing easy-to-use, centralized management, monitoring, and directory services to geographically distributed Polycom conferencing systems. For more information about the GMS, refer to the *Integrators' Reference Manual for ViewStation EX, ViewStation FX, and VS4000.*

Configuring Settings for the Global Address Book Server

The **Global Address** screen allows you to enter the Global Address Book Server's IP address and its password. It also lets you determine whether of not you want to use Global Addresses or register the system each time it is powered on.

To access the Global Address (Server) screen:

Select **System Info > Admin Setup > LAN/H.323 > Global Address > Server.**

Figure 4-20. Global Address (Server) Screen

You can configure the following GAB server options on this screen:

- **Server IP Address**—Enter the IP address of the GAB server.
- **Server Password**—Enter the GAB server password, if there is one.
- **Global Directory Server Version**—This displays the current version of the Global Directory.
- **Display Global Addresses**—When you enable this option, global addresses appear in the system's Address Book.
- **Register this System When Powered On**—When you enable this option, the system's IP address appears in the GAB when the system registers with it. If you do not enable this option, the system has access to the GAB, but does not appear in the Global Address Books of other systems.

Setting the Global Address Book Preferences

The GAB display and dialing options available on this screen are determined by the call type options and the **Use Gatekeeper** option that you have previously enabled on the **Call Preference** and **Gateway & Gatekeeper** screens respectively.

© Polycom, Inc. 2003

To access the Global Address Book Preferences screen:

Select **System Info > Admin Setup > LAN/H.323 > Global Address > Preferences.**

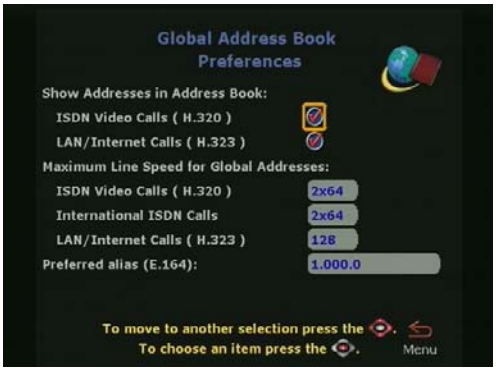

Figure 4-21. Global Address Book Preferences Screen (for IP and ISDN Calls)

- **Show Addresses in Address Book**—This option lets you enable the types of video numbers you want to see in your Global Address Book. Only call type options that you enabled on the **Call Preference** screen (**ISDN Video Calls, LAN/Internet Calls)** appear on this screen.

  This screen will also display the **Gateway Calls** option if you have previously enabled the **Use Gatekeeper** option in the **Gateway & Gatekeeper** screen.

  When you enable the **LAN/Internet Calls (H.323)** option, IP addresses appear in the system's Address Book.

- **Maximum Line Speed for Global Addresses**—You can set the line speed for each type of call you enabled in the **Call Preference** screen. Depending on your selection in the **Call Preference** screen, some or all of the following options are displayed on this screen:

  - **ISDN Video Calls**
  - **International ISDN Calls**
  - **LAN/Internet Calls**

  Gateway Calls is also displayed if you have previously enabled the **Use Gatekeeper** option in the **Gateway & Gatekeeper** screen.

The speeds you select affect only Global Address Book entries in the system's Address Book.

- **Preferred Alias (E.164)**—This option is only available if you have registered your system with a Gatekeeper and the Global Address Book server. Select this field to access the **Preferred Alias** screen. See Selecting your Preferred Alias below.

Selecting your Preferred Alias

All the available options on this screen are valid numbers that outside systems can use to reach your ViewStation EX system. Select the number that you would like to register with the Global Directory Service.

To access the Preferred Alias screen:

Select **System Info > Admin Setup > LAN/H.323 > Global Address > Preferences > Preferred Alias (E.164)**.

The options visible on the screen depend on the **Gateway Number Type** that you have previously selected on the **Gateway Number** screen.

- If **DID** is the **Gateway Number Type** that you selected on the **Gateway Number** screen, then the possible Preferred Alias options are:
  - **ISDN Number** (if the system has ISDN natively)
  - **Full DID Number**
  - **DID Number Provided by Switch**
  - **DID Extension**
  - **H.323 Extension**

Note

For more information about DID, refer to Configuring the Gateway Number, on page 100.

- If **Number + Extension** is the **Gateway Number Type** that you selected on the **Gateway Number** screen, then the possible **Preferred Alias** options are:
  - **ISDN Number** (if the system has ISDN natively)
  - **H.323 Extension**

Selecting the Call Type Order for OneDial Address Book Entries

The **Advanced Address Book Preferences** screen lets you select the order of the call types (IP or ISDN) to use when you dial OneDial Address Book entries which contain both IP and ISDN numbers. For more information about OneDial, refer to Configuring the Gateway and Gatekeeper, on page 96.

To access the Advanced Address Book Preferences screen:

Select **System Info > Admin Setup > LAN/H.323 > Global Address > Preferences> Advanced Preferences.**

Two choices are available:

- **Primary Call Type Choice**—This option sets which call type the system will try first when dialing a site (which can be reached via IP and ISDN) from the Address Book. The choice can be **ISDN** or **IP**.

  It is automatically reset to **Manual** if the setting matches that of the Secondary Call Type Choice. If both ISDN and LAN/Intranet are enabled, **ISDN** is the default.

  If a call cannot be established using the primary call type, the system will use the secondary call type to automatically attempt to reconnect.

- **Secondary Call Type Choice**—This option sets which call type the system will try second when dialing a site (which can be reached via IP and ISDN) from the Address Book. The choice can be **ISDN, IP,** or **None**. It is automatically reset to **None** if the setting matches that of the Primary Call Type Choice. If both ISDN and LAN/Intranet are enabled, **IP** is the default.

Entering the Private Network Number

The Private Network ISDN (or PRI) Number provides a second number that can be used to call the ViewStation EX system (for example, the company's PBX has two different lines coming from different network providers). It provides the correct numbers to the caller for the additional lines needed after the connection of the first line.

The Private Network Number can also be used to tell the PBX that additional calls should be routed internally within the PBX instead of going outside the PBX through the trunk line. In other words, the Private Network Number can be used as a "fake" number which the PBX handles as an internal number.

To access the Private Network ISDN (or PRI) Number screen:

Select **System Info > Admin Setup > LAN/H.323 > Global Address > Private Net**.

This screen is only accessible if a BRI network interface is attached to the system. The private number is generally obtained from the IT manager or the network administrator.

Note

Some PBXs always signal the same called number independent of which number was used to call an endpoint. The private number method might fail in this situation.

Establishing Dialing Rules

Dialing Rules 1

ViewStation EX numbers are automatically normalized for the address books of other ViewStation EX systems: Global Dial takes into account the numbers, area codes (or city codes), country codes, and international dialing access codes for systems that are placing

© Polycom, Inc. 2003

and receiving calls. For example, if you live in Paris, your system's number appears correctly in the address books of a system in Paris, a system in Sydney, a system in New York, and a system in Cape Town.

However, if your system is on your organization's private network as well as a public network, you might have to add additional information that can help the Global Address Book (GAB) decide how you call other systems on or off your private network. If your system uses only a public network, you do not need to enter anything in this screen.

The Global Address Book uses the following dialing rules when calling a public network or a private network.

Table 4-1. Dialing rules used by the Global Address Book

Call From	Call To	Type of Call Placed
Public Network	Public Network	Public Network
Public Network	Private Network	Public Network
Private Network	Public Network	Public Network
Private Network	Private Network	Private Network

These rules will be used by your Global Address Book server to provide your Address Book with the correct numbers to dial any site that is registered with your GAB. They are configured on the **Dialing Rules 1** screen.

To access the Dialing Rules 1 screen:

Select **System Info > Admin Setup > LAN/H.323 > Global Address > Dialing Rules 1.**

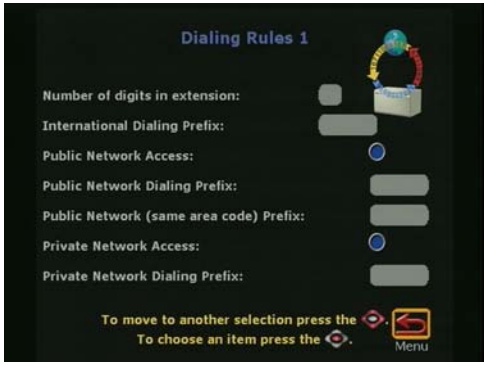
Dialing Rules 1
Number of digits in extension:
International Dialing Prefix:
Public Network Access:
Public Network Dialing Prefix:
Public Network (same area code) Prefix:
Private Network Access:
Private Network Dialing Prefix:
To move to another selection press the
To choose an item press the
Menu

Figure 4-22. Dialing Rules 1 Screen

You can configure the following network dialing rules:

- **Number of digits in Extension**—Set the number of digits in your dialing extension. This usually applies to systems that are on a PBX. Sites that dial your system with the same area code (or city code) and prefix dial use only your extension number. For example, if your system's number is 1 512 555 1212 and you set 5 as the number of digits in your extension, a system with the number 1 512 555 1212 will use 51212 to dial your system.

- **International Dialing Prefix**—Enter the prefix that must be used to place international calls. This prefix is automatically appended to any international calls made from the GAB. This overrides the international dialing prefix that is normally transparently set in the system **Country** screen.

- **Public Network Access**—Enable this option if your system can dial outside of your private network.

- **Public Network Dialing Prefix**—Enter a dialing prefix as required by your PBX to dial out to the public network. This prefix is automatically inserted before the dialing numbers to the public network from the GAB.

- **Public Network (same area code) Prefix**—Enter a prefix if one is required to call within the same area code.

- **Private Network Access**—Enable this option if your organization uses a private network for calls.

© Polycom, Inc. 2003

If both the caller and the called party are on your Private Network, as indicated by enabling the **Private Network Access** option, then the Address Book of the calling site (through the Global Directory Server) will show the private numbers of the site being called if they are entered in the **Private Network ISDN Number** screen (**System Info > Admin Setup > LAN/H.323 > Global Address > Private Net)**. In other words, if both sites have the Private Network Access enabled, then their address books will show the other parties' private numbers instead of the normal ISDN number.

For more information about Private Network ISDN Number, refer to Entering the Private Network Number, on page 125.

- **Private Network Dialing Prefix**—Enter the dialing prefix required to dial within your private network. This prefix is used if your system and the system you are calling have access to your organization's private network.

Dialing Rules 2

If your private network requires you to dial prefixes to access certain area codes (or city codes), you can set those prefixes in the **Dialing Rules 2** screen.

To access the Dialing Rules 2 screen:

Select **System Info > Admin Setup > LAN/H.323 > Global Address > Dialing Rules 2.** The following screen appears**:**

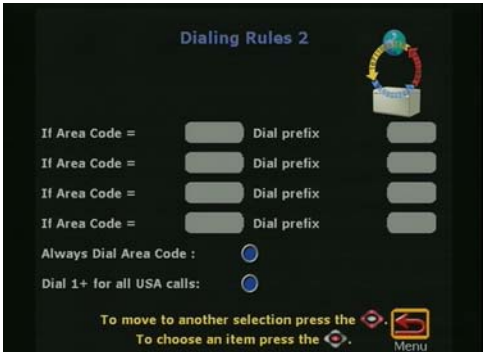

Figure 4-23. Dialing Rules 2 Screen

The prefix is dialed before the area code. For example, some sites require you to dial a 9 before dialing a 1-800-xxx-xxxx number.

Enable the **Always Dial Area Code** option if you must dial the area code to sites that have the same area code as your system. This is sometimes necessary for 10-digit dialing.

© Polycom, Inc. 2003

Configuration for the Global Management System

Overview

This section describes how to set up the ViewStation EX system to be centrally configured, managed, and monitored by the Global Management System (GMS) server.

Note

To use the Global Management System (GMS) features, your organization must use Polycom Global Management System (GMS) software.

To access the Global Management screens:

Select **System Info > Admin Setup > LAN/H.323 > Global Management**. These screens are:

- **Global Management**. See Configuring Settings for the Global Address Book Server, on page 120.
- **Global Management URLs**. See Accessing Global Management Server URLs, on page 133
- **Global Management Info.** See Adding Global Management Technical Support Contact Information, on page 134

About Global Management System

The Polycom Global Management System (GMS) is a Web-based client/server software tool designed to enable and support centralized management of enterprise-wide video communications networks. GMS is used to:

- Manage and update a network of Polycom endpoints from your local desktop and minimize time spent maintaining video conferencing infrastructure.
- Obtain a global view of ViewStation systems connected to your network.
- Proactively and remotely identify when network errors and problems with ISDN lines or IP connections occur.

The GMS main features are:

- **Centralized Video Network Management with Web-based Architecture**—This tool allows you to maintain and manage the entire video communications network from any where in the world with your Web browser.
- **Zero-Administration Directory Services**—The enterprise-wide Global Directory enables users to dial any video system by name.
- **Multiple Remote Alert Notification**—The GMS' proactive and reactive monitoring system automatically sends e-mail to multiple network administrators' pagers with critical information enabling remote troubleshooting.
- **Call Detail Record**—Details of every video endpoint call is recorded into a database to be used later for customer bill-back or system expansion evaluation.
- **Provisioning**—GMS lets you create profiles of systems' settings that can be sent to new installed systems.
- **Multiple Security Permissions**—You can create individual and group permission levels and access.

Note

For more information about GMS, refer to the *Integrators' Reference Manual for ViewStation EX, ViewStation FX, and VS4000*. You can also find information on GMS on the Polycom Web site at **www.polycom.com**.

© Polycom, Inc. 2003

Setting Global Management Preferences

Global Management must be manually set on the ViewStation EX system to be active.

To access the Global Management setup screen:

Select **System Info > Admin Setup > LAN/H.323 > Global Management > Setup.** The **Global Management** setup screen appears.

Figure 4-24. Global Management (Setup) Screen

You can set the following options on this screen:

- **Allow Remote Monitoring**—Enable this option to allow the GMS system administrator to view a call or view the room where the ViewStation EX camera is installed.

  For privacy reasons, you can enable this option only from the near-site system. Also, if you want to protect your office privacy, disable this option.

- **Time Difference from GMT**—Enter the time difference from where the system is installed and Greenwich Mean Time (GMT). This allows the GMS to view the local time of the managed system.

- **Daylight Savings Time**—Enable this option if the area where the system is installed participates in Daylight Savings Time.

- **Require Account Number to Dial**—You must use GMS 2.0 or later to use this option. This feature is used to log calls to a

specific account so that they can be tracked and billed to the appropriate departments. When this option is selected, you cannot make a call without first entering an account number. This account number is saved in the GMS server database along with information specific to the call. Typically, the GMS administrator assigns the account number.

- **Validate Account Number**—This option is visible if the **Require Account Number to Dial** option is enabled. The account number is validated before the first call is attempted. The entry of a valid account number allows calls to be made for the next five minutes. After that, an account number must be re-entered. If you enter an account number, make a call, and then try to add a call more than five minutes later, you will again be prompted for an account number. If this account number is not valid, the pending call is not made and the call you had been in for the last five minutes is hung up. Account numbers are validated by the system whose IP address is the first entry in the GMS monitoring URLs list. If that IP address is incorrect or that system fails to respond, no calls can be made.

- **Global Managers URLs (Select Server URLs)**—Select this option to access the **Global Managers URLs** screen.

Accessing Global Management Server URLs

The **Global Management URLs** screen lists the GMS servers that remotely manage your system. When you are registered with the GMS, this information is automatically displayed on this screen. In some instances, you may add GMS server IP addresses manually. This information is provided by your network manager.

© Polycom, Inc. 2003

To access the Global Management URLs screen:

Select **System Info > Admin Setup > LAN/H.323 > Global Management > Setup > Select Server URLs....**The **Global Management** setup screen appears.

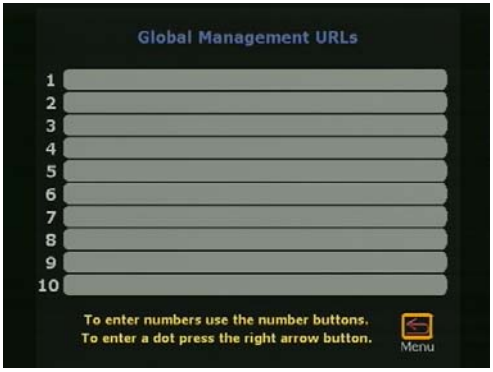

Figure 4-25. Global Management URLs Screen

The first field contains the address of the primary GMS server that performs account validation (see **Validate Account Number on** page 133).

The first entry in the GMS URLs list is used for account number validation. If you enter an incorrect IP address for the first entry, you will get "no response from GMS" if there is an attempt to validate an account number and you cannot make calls.

Adding Global Management Technical Support Contact Information

The **Global Management Info** screen allows you to enter the contact information of the person who administers GMS in the event assistance is requested by the user.

To access the Global Management Info screen:

Select **System Info > Admin Setup > LAN/H.323 > Info 1.** The following screen appears:

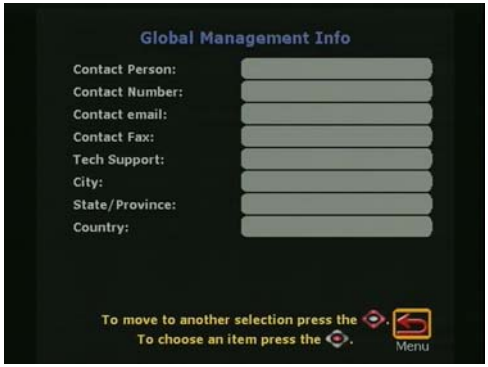

Figure 4-26. Global Management Info Screen

Configuring Streaming Preferences

Streaming is the process of sending audio and video over a local area network from one source to many viewers. A stream is sent out over IP multicast.

IP multicast is very efficient for this type of broadcasts by enabling the Viewstation EX to send a single copy of the media to multiple recipients. By using IP multicast, there is no restriction in the number of viewers.

The **Streaming** screen allows you to set up the streaming parameters.

To access the Streaming screen:

Select **System Info > Admin Setup > LAN/H.323 > Streaming**. The **Streaming** screen appears:

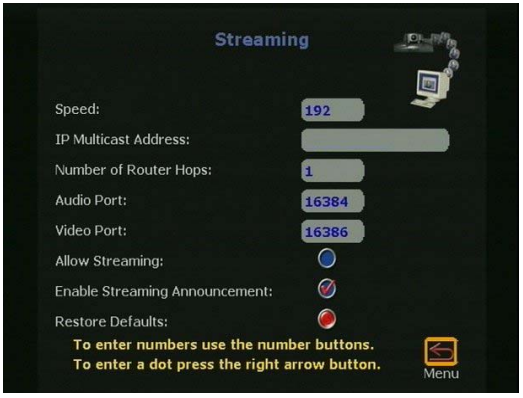

Figure 4-27. Streaming Screen

You can configure or modify the following options:

- **Speed**—Select the speed (192, 256, 384, 512 Kbps) you are allowing for streaming. Consult your network manager, as this may affect the network bandwidth.
- **IP Multicast Address**—A default address is entered for you based on your serial number. This ensures that you do not have the same multicast address as another system. You can change

this address. This is the address of a relay server that unicasts the stream to multiple endpoints.

- **Number of Router Hops**—The number of router hops is officially called Time to Live or TTL. This value represents the number of routers the data can traverse before it is no longer passed on. A value of 1 specifies the multicast data stays within the subnet. A value of 2 means that a computer on a subnet which only has one router between it and the system will be able to play the stream.
- **Audio Port**—This is a fixed port. This may be changed by your network manager if a user needs to go through the firewall.
- **Video Port**—This is a fixed port. This may be changed by your network manager if a user needs to go through the firewall.
- **Allow Streaming**—When this option is enabled, the icon on the main screen of the user interface changes from **Telephone** to **Call Type**. Click **Call Type** to access the **Streaming Call** screen. In the **Streaming Call** screen, you can set a **Meeting Password**. Click the **Start** icon to start streaming.
- **Enable Streaming Announcement**—When this option is enabled, the names of users logged on to your system are displayed on screen.
- **Restore Defaults**—Selecting this option restores the **Speed, IP Multicast Address, Number of Router Hops, Audio Port**, and **Video Port** defaults.

To start streaming:

1. Go back to the main screen and select **Call Type**.
2. Select **Streaming Call**.
3. Enter a **Meeting Password**, if needed
4. Select **Start**.

© Polycom, Inc. 2003

Configuring SNMP Preferences

SNMP (Simple Network Management Protocol) is a set of protocols used to manage complex networks. SNMP tells the network if a device or operation is functioning properly. The ViewStation EX sends SNMP reports on the following:

- ❑ Low battery power in the remote control.
- ❑ System is being powered on after a long time powered off.
- ❑ Authentication failure—someone is attempting to log in as an administrator with the wrong password.
- ❑ Authentication success—someone has logged on successfully as an administrator.
- ❑ Call failed for reason other than a busy line.
- ❑ A user has asked for help from the Technical Assistance Center.
- ❑ A system is in a telephone or video call.
- ❑ A telephone or video call has disconnected.

To access the SNMP Setup screen:

Select **System Info > Admin Setup > LAN/H.323 > SNMP**. The **SNMP Setup** screen appears.

Figure 4-28. SNMP Setup Screen

You can enter the following information on the **SNMP Setup** screen:

- **Enable SNMP**—Enable or disable SNMP in this field.
- **Administrator Contact Name**—Enter the name of the person responsible for remote management of this system. The default setting for this field is "IT Administrator."
- **SNMP Console IP Address**—Enter the IP address of the SNMP traps sent by the system. Enter 0.0.0.0 in this field if any SNMP management console is capable of receiving information from this agent.
- **Location Name**—Enter the location of the system. This field defaults to your system's name@your country name.
- **Community Name**—Enter the SNMP management community in which you want to enable this agent. The default setting for this field is "Public."
- **System Description**—This field displays the type of videoconferencing device. You cannot edit this field.

© Polycom, Inc. 2003

Configuring Quality of Service

The **Quality of Service** screen lets you select the type of service for your videoconferencing packets on your network and whether or not you would like to enable the Dynamic Bandwidth feature.

To access the Quality of Service and Firewalls screen:

Select **System Info > Admin Setup > LAN/H.323 > QOS**. The **Quality of Service** screen appears.

Figure 4-29. Quality of Service Screen

In this screen, you can configure the following options:

- **Type of Service Field**—Select one of the following two options:
  - **IP Precedence:** This is a number that represents the level of priority given to IP packages sent to the ViewStation EX system. The value can be between 0 and 5. If this option is selected, enter the value in the **Type of Service Value** field.
  - **DiffServ**: This is a number that also represents a priority level. The value can be between 0 and 63. If this option is selected, enter the value in the **Type of Service Value** field.
- **Type of Service Value**—Enter the value of the **Type of Service Field** option you have selected above (**IP Precedence** or **Diffserv**).

- **Dynamic Bandwidth**—Specify use of dynamic bandwidth allocation. The ViewStation EX system dynamic bandwidth function automatically finds the optimum line speed for a call. If you experience excessive packet loss while in a call, the Dynamic Bandwidth function decreases the line speed until there is no packet loss. After some time with no packet loss, the dynamic bandwidth function incrementally increases line speed until packet loss occurs. At this point, the Dynamic Bandwidth function lowers the line speed one increment to ensure minimal packet loss with maximum throughput. This is supported in calls with end points that also support Dynamic Bandwidth.

© Polycom, Inc. 2003

5

Using the ViewStation EX

This chapter explains how to perform all the basic system operations listed in the following Topics table.

Topics in This Chapter

The following topics are included in this chapter.

Topic	Description	Page
Remote Control	The remote control functions are explained in this section.	144
Video Calls	This section explains how to place, answer, and end video calls.	148
Analog Telephone Calls	This section contains instructions on how to place a telephone call, add a telephone call to a video call and vice versa, and disconnect a telephone call.	158
Address Book	This section describes how to add, edit, and delete Address Book entries. It explains how to transfer the Address Book from one system to another, how to use the Global Address Book, and how to create multipoint Address Book entries.	161
Cameras and Sound	This section describes how to control cameras and sound. It contains detailed information on camera settings, presets, and automatic tracking.	167

© Polycom, Inc. 2003

Topic	Description	Page
Snapshots	This section explains how to send snapshots. It also contains information on the Snapshot Timeout option.	175
Picture-In-Picture (PIP)	This section describes the PIP feature (the picture from the local camera being displayed as a small picture on screen during an active video call).	177
Graphics Cursor	This section describes the graphics cursor and how to use it.	178

Remote Control

Most ViewStation EX functions are performed using the remote control. The remote control is an integral part of your system. It works very much like the remote control that you use at home for your television.

The remote control is an “intelligent” device: it becomes active as soon as you pick it up, and becomes inactive as soon as you set it down again.

You will use it to highlight and select icons that appear on the monitor connected to your system, configure your Address Book, adjust your camera, adjust the sound, place video calls, etc.

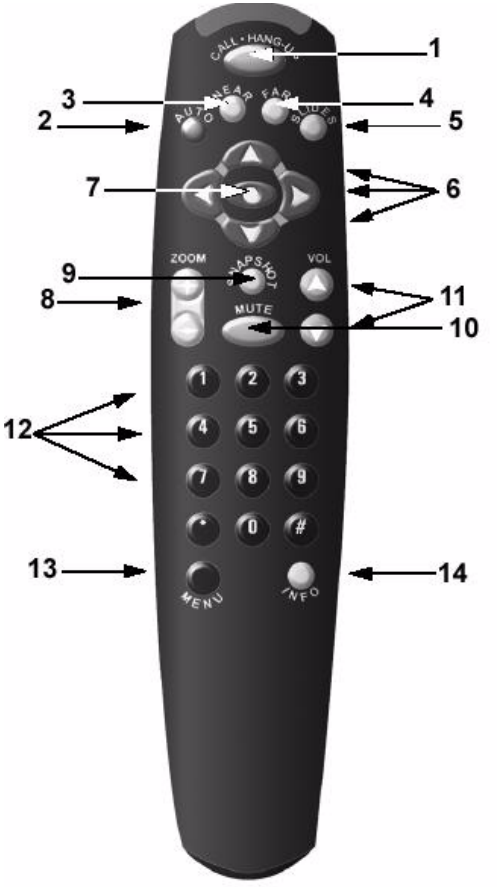

Figure 5-1. Remote Control

The remote control functionality is described in Table 5-1.

Table 5-1. Remote Control Functionality

Function	Description
1. Call-Hangup	Allows users to make calls or hang up call. It takes you to the dialing screen (**Video Phone**). It is used to place a call, to manually answer a call, to add in another video or audio endpoint call to a multipoint call.
2. Auto	Activates, deactivates, and cycles through the auto-tracking functions.

Function	Description
3. Near	Activates camera control of the near side of the call (your system). You know the near side function is activated when you see the camera icon in the top right corner of the screen pointing at you.
4. Far	Activates camera control of the far side of the call (remote system), and also sets presets. You know the far side function is activated when the camera icon in the top right corner of the screen is facing away from you.
5. Slides	Allows you to access preloaded slides or to start or stop a dual stream.
6. Arrow Buttons	Allows you to navigate through the menu screens. The right arrow button is also used to enter a period (.) as in IP addresses.
7. Select	The universal “enter” button. In most screens, you can press the SELECT button to select an icon, or to perform the function that you have highlighted.
8. Zoom	Allows to zoom in and out of near and far PTZ (pan-tilt-zoom) cameras.
9. Snapshot	Allows you to capture an image from the camera source of your choice and send it to the far side as a still image.
10. Mute	Allows you to activate or deactivate the microphones on the near side using the remote control, as opposed to pressing the mute button on the microphone pod.
11. Volume	Controls the volume of the sound through the amplifier in the system.
12. Keypad	Used to enter dialing or screen configuration numbers. Also used to go to camera presets.

Function	Description
13. Menu	Takes you to the menu screens from either the near or far camera view. The Menu button will back you out one screen at a time when you are inside the menu screens.
14. Info	Takes you to basic system tutorials. Also used to request help from the system administrator if the unit is registered with Global Management System. It can also take you to **Network Status** screen if you are in the near screen while in a call.

© Polycom, Inc. 2003

Video Calls

There are five ways to place a video call:

- **Using manual dialing**. See Placing a Call Manually.
- **From the Address Book**. See Placing a Call from the Address Book.
- **Using speed dialing.** See Placing a Speed-Dial Call.
- **Dialing from the Web interface.** See Placing a Call from the Web Interface.
- **Dialing using the Application Programming Interface (API).** See Placing a Call Using the Application Programming Interface.

Placing a Call Manually

Using One Number

To place a call manually using one number:

1. On the main screen, highlight the **Video Call** icon and press the SELECT button on the remote control. The following screen appears.

Figure 5-2. Video Phone Screen

2. Use the numeric keypad on the remote control to enter the number you want to dial.

   If you need to enter alpha characters, press the AUTO button on the remote control to bring up the keyboard.

Note

When you enter a number using the remote control, you can hear a voice confirmation of that number from the ViewStation EX system. This feature, Keypad Audio Confirmation, supports English, French, German, Portuguese, Spanish, and Chinese. It can be enabled on the **General Setup** screen by selecting the **Keypad Audio Confirmation** option.

3. Use the arrow buttons on the remote control to highlight the **Speed** icon on the screen and select the speed of your call from the list that appears.

4. Use the arrow buttons to navigate down to select the call type (**AUTO, ISDN**, or **IP**) and the desired call speed. If you select **AUTO**, the system will figure out automatically which call type to choose based on the format of the number you have entered.

5. Press the green CALL•HANG-UP button on the remote control to place your call. The number and the speed that you are dialing appear at the top of the screen.

   The call progress indicators on the lower left side of the screen indicate that the call is going through.They change progressively to blue, yellow, orange, and green as your call completes.

© Polycom, Inc. 2003

Figure 5-3. Call Progress Indicators

6. When the call completes, the party you called appears on the screen, and you appear in the picture-in-picture (PIP) window at the lower right. If you have a two-monitor system, the party you are calling appears on the main monitor, and you appear on the second monitor.

   If the call does not complete, an error message is displayed. If you receive an error message, press the INFO button on the remote control for an explanation. For V.35/RS-449/RS-530 systems, consult your DCE interface for error messages.

7. To end your call, press the CALL•HANG-UP button on the remote control. The following screen appears.

Figure 5-4. Call Hangup Choices Screen

8. Highlight the **Disconnect Video Call** icon and press the SELECT button on the remote control. If the call was made with

a number that is not in your Address Book, a dialog box gives you the opportunity to add the number. If you select **Yes,** the system takes you to the address book where you can enter the information. If you select **No**, the main screen appears on your monitor.

Notes

If you stay in this screen for 60 seconds without pressing the SELECT button on the remote control to stay in the call or hang up, the call is disconnected.
The **Add Video Call** option is only visible if you have enabled your system to support multipoint calls. For more information, refer to Upgrading the System for Multipoint Calls.
You can also place a video call using the Address Book or Speed Dial. For more information, see Address Book.

Using Two Numbers

In some instances, you need to dial ISDN numbers separately when the party that you are calling can only handle 2 x 56 Kbps or 2 x 64 Kbps speeds.

To manually place a video call using two numbers, complete the following:

1. Select the **Video Call** icon. If the speed that you selected is for a 2 x 56 Kbps or 2 x 64 Kbps call, a second number field becomes visible. If the **Auto H.323** option is enabled, the system knows which call type to use when dialing out based on the format of the number. If this option is not enabled, then the IP and ISDN options are visible on the **Video Call** screen and you need to select the appropriate option.

2. To enter the first ISDN number of the party you are calling, use the numeric keypad on the remote control.

   To clear an entry, use the arrow buttons on the remote control to move the highlight box to the **Clear** icon on the screen, and press the SELECT button (or the CALL•HANG-UP button).

   To clear part of an entry from the right, press the LEFT ARROW button once for each character you wish to delete.

© Polycom, Inc. 2003

3. To enter the second number:

   - For an ISDN number one digit greater than the first, press the RIGHT ARROW button to enter that number, then skip to step 5.
   - For an ISDN number which is the same as the first, press the DOWN ARROW button, then skip to step 4.
   - Otherwise, press the DOWN ARROW button to move the orange highlight box to the second line of the screen. Use the LEFT ARROW button on the remote control to delete numbers to the left and the numeric keypad to enter the second ISDN number of the party you are calling.

4. Press the SELECT button (or the CALL•HANG-UP button) to place the call.

5. As the call connection approaches completion, the call progress indicators on the lower left of the screen change from blue to green. Two call progress indicators appear for each available line.

   If the call cannot connect, an error box appears at the top center of the screen. You can re-dial from the **Video Phone** screen, where the number you entered will remain until it is replaced or the system is turned off.

   When the call connects, the party you are calling appears in the main window and near-site video appears in a smaller screen at the lower right. If you are using a dual-monitor configuration, the party you are calling appears on the main monitor and you appear on the second monitor.

6. To end the call, press the CALL•HANG-UP button on the remote control, which takes you to the **Call Hangup Choices** screen.

7. Use the arrow keys to highlight the **Disconnect Video Call** icon and press the SELECT button on the remote control. If you highlight the icon but do not press SELECT, the call disconnects automatically after 60 seconds.

   If the call was manually dialed with a number that does not appear in the Address Book, you are given an opportunity to enter the name and number from the call into the Address Book.

   If you answer **Yes**, you will go to the screen used for adding a new entry to the Address Book. The number from that call is

already entered, and you can finish filling out the entry. If you answer **No,** the system returns to the main calling screen.

Placing a Call from the Address Book

You can place calls directly from your Address Book. For information on how to enter numbers into your Address Book, refer to Address Book.

You can place a call from the Address Book as follows:

1. Highlight the **Address Book** icon on the main screen and press the SELECT button. The **Speed Dial** screen appears.

Note

If the **Display Speed Dial** option has been disabled on the **General Setup** screen (page 2), you will access the Address Book directly.

2. Highlight the **Address Book** icon again and press the SELECT button.The **Address Book** screen appears. For each entry, the number is displayed along with icons showing dialing speed and if it is an H.320 (ISDN) or H.323 (IP) call.

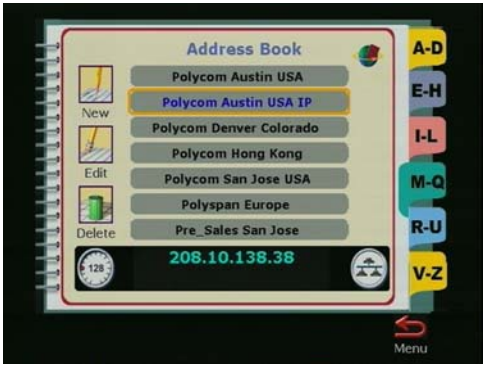

Figure 5-5. Address Book Screen

3. Use the arrow buttons on the remote control to scroll through the list of names. Press the SELECT button when you find the entry you want. The system automatically begins to dial the video number.

© Polycom, Inc. 2003

Placing a Speed-Dial Call

Speed Dial stores the last six numbers dialed from the ViewStation EX system if the numbers are in your Address Book.

Note

If the **Display Speed Dial** option has been disabled on the **General Setup** screen (page 2), you will not have access to the **Speed Dial** screen, but you will be taken directly to the Address Book..

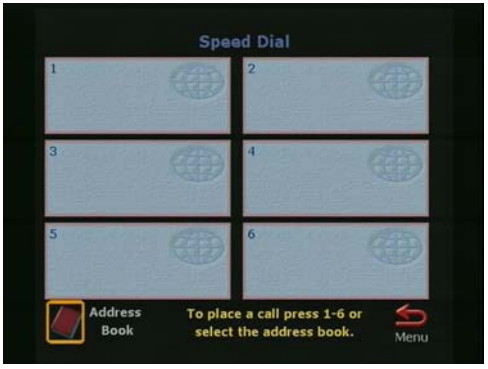

Figure 5-6. Speed Dial Screen

To place a Speed Dial call:

1. Highlight the **Address Book** icon on the main screen and press the SELECT button. The **Speed Dial** screen appears.
2. Highlight the speed dial entry you want to dial and press the SELECT button. The system automatically begins to dial the video number. You can also press the number of the speed dial entry you want to dial on your remote control. For example, to call speed dial entry 1, press 1 on the remote control.

To lock a Speed Dial entry:

You can lock a speed dial entry so that it always appears on the **Speed Dial** screen. This is useful for numbers you dial frequently.

1. To lock the number, highlight the entry on the **Speed Dial** screen.
2. Press the # button on the remote control. A **Lock** icon appears next to Speed Dial entries that are locked.

To unlock a Speed Dial entry:

1. To unlock a number, highlight the entry.
2. Press the * button on the remote control.

Placing a Call from the Web Interface

For instructions about how to place a video call from the Web interface, refer to Features of the Web Interface on page 229.

Placing a Call Using the Application Programming Interface

For instructions about how to place a call using the API, refer to the *ViewStation EX, ViewStation FX, and VS4000 ARENA API Programmer's Guide*.

Answering a Video Call Manually

The ViewStation EX is set by default to automatically answer incoming calls.

To set your system to answer video calls manually:

1. From the main screen, select **System Info > Admin Setup > General Setup** or select **System Info > User Setup**.
2. Highlight the field next to **Auto Answer Point to Point,** and select the **No** option from the drop-down menu.
3. When there is an incoming call, the user will be prompted with a message "You have a video call. Would you like to answer?" This message is followed by a video number and a far-site name

if they are available. If the user selects **Yes**, the call will be connected. If the user selects **No**, the call will be rejected.

Answering a Video Call Automatically

The ViewStation EX is set by default to automatically answer incoming calls. If the default settings are changed, you can reset the system to answer calls automatically.

To set your system to answer video calls automatically:

1. From the main screen, select **System Info > Admin Setup > General Setup or** select **System Info > User Setup**.
2. Highlight the field next to **Auto Answer Point to Point,** and select the **Yes** option from the drop-down menu. **Yes** is the default.
3. Press the MENU button on the remote control until you return to the main screen.

If the **Auto Answer Point to Point** option is set to **No**, all video calls need to be answered manually. Refer to the preceding section for more information.

Setting the System to Do Not Disturb

To set your system to Do Not Disturb Mode:

1. From the main screen, select **System Info > Admin Setup > General Setup or** select **System Info > User Setup**.
2. Highlight the field next to **Auto Answer Point to Point,** and select the **Do Not Disturb** option from the drop-down menu.
3. With the Auto Answer mode set to **Do Not Disturb**, you will not be notified of any incoming call. The site which placed the call will receive either a “call rejected” or “dialed site busy” message.

Ending a Video Call

To end a video call:

1. To end your call, press the CALL•HANG-UP button on the remote control. The **Call Hangup Choices** screen appears.
2. Highlight the **Disconnect Video Call** icon and press the SELECT button or press the CALL•HANG-UP button on the remote control twice. If the call was made with a number that is not in your Address Book, a dialog box gives you the opportunity to add the number.
   - If you select **Yes** the system takes you to the Address Book where you can enter the information.
   - If you select **No**, the main calling screen appears on your monitor.
   - To stay in the call, select the **Stay in Call** icon and press the SELECT button.

Note

If you stay in this screen for 60 seconds without pressing the SELECT button, the call automatically disconnects.

© Polycom, Inc. 2003

Analog Telephone Calls

In countries *where it is approved*, you can connect an analog telephone line to your ViewStation EX system. This lets you make telephone calls through the ViewStation EX system and include audio third parties in your video calls.

Placing a Telephone Call

You can use your system as a standard speakerphone.

To place a telephone call from your system:

1. From the main calling screen, select **Telephone** and press the SELECT button. The **Telephone** screen appears.

Telephone
Flash
Clear
1 2 3
4 5 6
7 8 9
* 0 #
To dial a telephone call use the number pad on the remote control and press . To disconnect a telephone call press .
Menu

Figure 5-7. Telephone Screen

2. Use the numeric keypad on the remote control to enter the number you want to dial.

   If you are dialing within your PBX system, you only have to dial the last four digits of the number.

   If you want to delete a digit, press the LEFT ARROW button on the remote control.

   To delete an entire phone number, highlight the **Clear** icon on the screen and press the SELECT button on the remote control.

3. Press the CALL•HANG-UP button on the remote control to place the call.

4. To end the call, press the CALL•HANG-UP button on the remote control.

Adding a Telephone Call to a Video Call

To add a telephone call once your video call is connected:

1. Press the CALL•HANG-UP button on the remote control. The **Call Hang-up Choices** screen appears.
2. Select the **Add Speakerphone** icon and press the SELECT button. The **Telephone** screen appears.
3. Enter the phone number of the third party using the numeric keypad on the remote control and press the SELECT button. The system begins dialing the third party.
4. Once the third party connects, press the NEAR or FAR button on the remote control to return to the videoconference.

Note

Three-way calling is only supported if you have enabled three-way calling from your local telephone company. Select the FLASH button on the telephone screen to obtain another line.

Disconnecting a Telephone Call

To disconnect a telephone call:

1. Press the CALL•HANG-UP button on the remote control. The **Call Hang-up Choices** screen appears.
2. Select the **Disconnect Speakerphone Call** icon and press the SELECT button on the remote control. The third party disconnects.

© Polycom, Inc. 2003

Adding a Video Call to a Telephone Call

To add a video call once your telephone call is connected:

1. Press the MENU button on the remote control until you reach the main calling screen.
2. Highlight the **Video Call** icon and press the SELECT button on the remote control. The **Video Phone** screen appears.
3. Use the numeric keypad on the remote control to enter the number you want to dial.

   If you are dialing within your PBX system, you only have to dial the last four digits of the number.

   To delete a digit, press the left arrow button on the remote control.

   To delete an entire phone number, highlight the **Clear** icon on the screen and press the SELECT button on the remote control.
4. Press the CALL•HANG-UP button on the remote control to place the call.
5. To end the call, press the CALL•HANG-UP button on the remote control.

Address Book

The Address Book saves you time by allowing you to place video calls by name. You can pre-program up to 1,000 entries in the Address Book. The Address Book supports both single site or multi-site calls, depending upon system configuration.

If your organization uses Polycom's Global Management System™ software, you can configure your Address Book to automatically show all of the addresses used in your organization.

For information on how to place a call from the Address Book, refer to Placing a Call from the Address Book in this chapter.

To access the Address Book:

1. Select the **Address Book** icon on the main screen. The **Speed Dial** screen appears.
2. Highlight the **Address Book** icon again and press the SELECT button on the remote control. The main **Address Book** screen appears as follows.

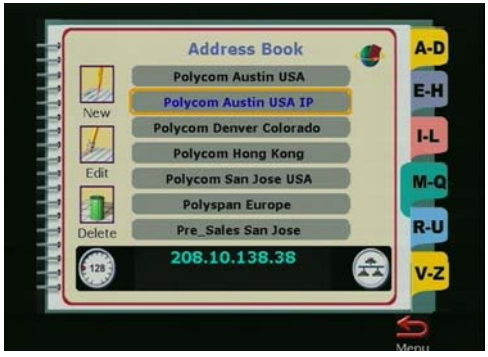

Figure 5-8. Address Book Screen

From this screen, you can perform all Address Book tasks.

© Polycom, Inc. 2003

Note

The **New, Edit,** and **Delete** icons are only visible if the **Allow Address Book Changes** option has been enabled in the **General Setup** screen (**System Info > Admin Setup > General Setup**).

Adding an Entry to the Address Book

To add an entry to the Address Book:

1. Select the **Address Book** icon on the main screen. The **Speed Dial** screen appears.
2. Highlight the **Address Book** icon again and press the SELECT button on the remote control. The main **Address Book** screen appears.
3. Highlight the **New** icon and press the SELECT button on the remote control. The **New Address Book Entry** screen appears.
4. Highlight the **One Site** icon and press the SELECT button on the remote control. The **Add/Change Entry** screen appears.

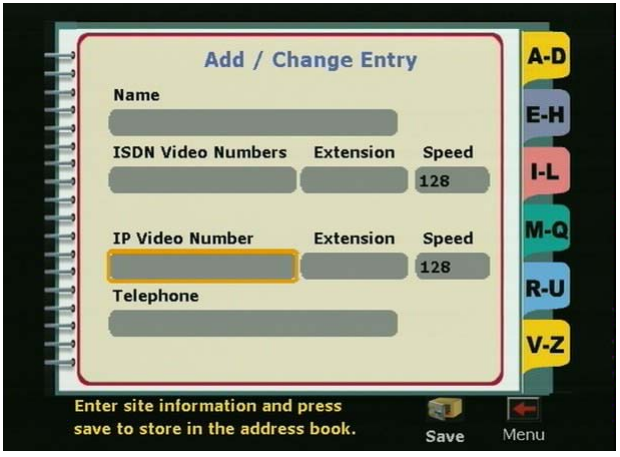

Figure 5-9. Add/Change Entry Screen

5. Use the on-screen keyboard and the remote control to enter the necessary information on this screen.

Tip

Enter a dot. To enter a dot, press the right button on the remote control.
Shift key settings. The on-screen keyboard's Shift key has three settings:
- lower case: using the remote control, select the Shift key until it turns into a greyish down arrow.
- upper case: using the remote control, select the Shift key until it turns into a green up arrow (as shown on Figure 5-9). Only the next letter you enter is capitalized.
- caps lock: select the Shift key twice. A lock symbol appears on the key. All the letters are capitalized while the lock is visible.

6. If you are using OneDial, enter both the ISDN VIdeo Number and the IP Video Number. OneDial is a Polycom proprietary feature that greatly simplifies videoconferencing dialing through taking care of a number of dialing and network processes in the background. For more information about OneDial, refer to About Polycom OneDial.
7. Highlight the **Save** icon and press the SELECT button on the remote control. You then return to the main **Address Book** screen.

Note

To create a multi-site entry, refer to Creating Multipoint Address Book Entries.

Editing an Existing Entry in the Address Book

To edit an existing Address Book entry:

1. Use the UP and DOWN arrow buttons on the remote control to highlight an Address Book entry.

© Polycom, Inc. 2003

2. Highlight the **Edit** icon and press the SELECT button on the remote control. The **Add/Change Entry** screen and the on-screen keyboard appear.
3. Use the on-screen keyboard and the remote control to change the information on this screen as needed.

   In the name field, use the backspace key on the on-screen keyboard to delete letters.

   In the number field, use the LEFT ARROW button to delete numbers.
4. Highlight the **Save** icon and press the SELECT button on the remote control. Your changes are saved and you return to the main **Address Book** screen.

Note

You cannot edit Global Address Book entries. They are dynamically obtained from the ViewStation EX that connected into the Global Address Book (GAB) server.

Deleting Entries in the Address Book

To delete entries in the Address Book:

1. Highlight the entry you want to delete.
2. Use the left arrow button to highlight the **Delete** icon.
3. Press the SELECT button on the remote control. The entry you selected is now deleted from the Address Book.

Transferring the Address Book

You can transfer the contents of your ViewStation EX system's Address Book to a far-site ViewStation while in an ISDN call (Address Book transfers can occur between all ViewStation models).

To transfer the contents of your Address Book:

1. From the main calling screen, go to **System Info > Admin Setup > Software/Hardware**.
2. Click the **Send Address Book** icon.
3. Enter the Administrator Password and Software Update Security Password of the far-site ViewStation system.
4. Click the **Start** icon to begin the transfer.

Note

This feature is only available when the system is in an ISDN call to a single endpoint.

Using the Global Address Book

If your organization uses Polycom's Global Management System™ software and your ViewStation EX system is set to subscribe to the Global Address Book server, you can access global addresses.

The Global Address Book provides users with easy, one-button dialing to anywhere in the world. The Global Address Book automatically captures and updates your system's dialing information, country codes, and preferred line speeds. The user simply selects a name from the list to place a call.

When you access the Address Book on a system that subscribes to the Global Address Book server, you see addresses that have been entered manually and global addresses from various address books.

The following icons on the **Address Book** screen indicate Global Address Book status and individual address status.

The presence of this icon in the upper right corner indicates that the system is connected to the Global Address Book server. When this icon rotates, it indicates that the system is actively accessing the Global Address Book server for addresses. Notice the icon rotating as you scroll through the address list.

© Polycom, Inc. 2003

This icon indicates that the selected address is an address from the Global Address Book. You cannot edit or delete global addresses from your system. You can perform these tasks only from the Global Address Book console.

This icon allows you to save a global entry to your local Address Book.

This icon indicates that the selected address is an address that was entered manually. These addresses are local to your system and are not reported to the GAB server. You can edit and delete these addresses from your system.

For more information about Global Management System software, go to our Web site at **www.polycom.com** or see About Global Management System on page 130.

Creating Multipoint Address Book Entries

You can make it easier to place multipoint video calls by creating multipoint entries in your Address Book. Multipoint entries are made with the single-site entries that are already listed in your Address Book or Global Address Book. When you use multipoint entries, you can call all the selected sites from one Address Book entry.

For information about creating a multipoint entry and placing a multipoint call, refer to Using an Address Book Meeting Entry on page 189.

To be able to use this feature, your system must be connected to an MGC system, configured for Conference and Demand, and use PathNavigator.

Cameras and Sound

The following sections describe how to control the cameras and sound on your ViewStation EX system.

Controlling Cameras

Your system has a built-in, auto-focusing, pan-tilt-zoom (PTZ) camera which you can control manually or set to auto-tracking where the camera aims at the person who is speaking in the videoconference. Manual control mode and auto-tracking mode are available for the near and far cameras.

Selecting a Near-Site Camera

To select a near-site camera:

1. Press the remote control's NEAR button twice. Numbered local video sources appear at the bottom of the screen, where:

   1 = main camera

   2 = document camera

   3 = VCR

Figure 5-10.

2. Use the left or right arrow keys on the remote control to highlight a video source. Then press the SELECT button on the remote control.

   -or-

   After pressing the NEAR button twice on the remote cont rol, press button 1, 2, or 3 to jump to a specific camera.

Note

Make sure that the camera icons are displayed on screen. Otherwise, when you press the number button, a camera preset will be selected instead of a different camera source.

© Polycom, Inc. 2003

3. The system displays full screen the camera's current view on the television monitor. A **Camera** icon appears in the upper right corner pointing towards you.

Selecting a Far-Site Camera

To select a far-site camera source during a call:

1. Press the FAR button twice on the remote control. A series of cameras pointing away from you (towards the far site) appears.
2. Press the left or right arrow key on the remote control to highlight a video source. Then press the SELECT button on the remote control.

   -or-

   After pressing the FAR button twice, press button 1, 2, 3, 4, or 5 to jump to a specific camera.
3. Press the SELECT button on the remote control.
4. The system displays full screen the far-site camera's current view on the television monitor. A **Camera** icon appears in the upper right corner pointing away from you.

Note

If there is no camera connected to the selected video source, you will see either a blue screen or frozen video from the last video source.

Controlling the Near-Site Camera

Camera Control Mode—To control or adjust the camera on your system, press the NEAR button on the remote control. A camera icon appears in the upper right corner pointing towards you.

Tilt, Pan—Use the arrow buttons on the remote control to tilt the camera up and down and to pan from side to side.

Zoom—Use the ZOOM buttons to zoom in and out.

The following picture shows the buttons that are used on the remote control to control the camera.

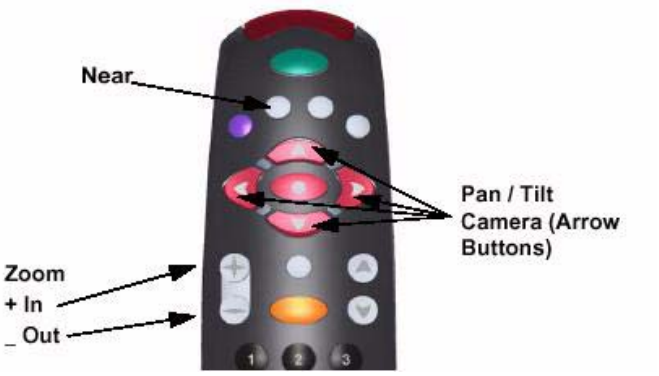

Figure 5-11. Camera Control Button on Remote Control

Controlling the Far-Site Camera

You can also adjust the camera on the far site in a call if that site has its **Far Control of Near Camera** option enabled. Other sites can control the camera on system if you have this option enabled.

To enable the Far Control of Near Camera option on your system:

Select **System Info > Admin Setup > Video/Camera > Cameras**.

To put the camera in control mode:

To control or adjust the system's camera on the far site, press the FAR button on the remote control. The far site camera's view appears full screen on the television monitor. A **Camera** icon appears in the upper right corner pointing away from you. Use the remote control to adjust the far-site camera the same way you would adjust your camera.

© Polycom, Inc. 2003

To tilt or pan the camera:

Use the arrow buttons on the remote control to tilt the camera up and down and to pan from side to side.

To zoom:

Use the ZOOM buttons on the remote control to zoom in and out.

To go to a menu screen while in a call:

While in a call, if you have to go to a menu screen to make some adjustments, pressing the NEAR or FAR button on the remote control returns you to your call view.

Adjusting Camera Settings

You can adjust the settings of your cameras from the **Cameras** screen.

To access this screen:

Select **System Info > Admin Setup > Video/Camera > Cameras**.

The options available on the **Cameras** screen are described in the section Video and Cameras Screens on page 305.

Setting Camera Presets

You can set and store up to ten preset camera positions. These ten camera presets can be distributed across the far camera and up to four near-site cameras.

To set a camera preset:

1. Press the NEAR or FAR button on the remote control to select the near or far camera.

2. If you pressed the NEAR button, press it again to select the near-site camera.
3. Position the camera using the arrow buttons and ZOOM buttons on the remote control.
4. Press the SELECT button on the remote control. The camera preset circles are now displayed. A "Press 0-9 to store a preset" message appears on the main monitor.

Notes

If the circle is transparent, the preset is empty.

If the circle is solid yellow, the preset is assigned.

To clear all the presets, press the pound (#) key on the remote.

5. Press a number button on the remote control to assign that button to the preset.
6. To select a camera preset, press the NEAR or FAR button for the desired camera and press the number button on the remote control for the preset you want.

Enabling Automatic Voice Tracking

The main camera on your ViewStation EX can automatically move to whomever is speaking in the meeting. The first time the camera moves to a person, it might take several seconds of continuous speech to locate the person speaking.

The camera picks out the position quickly the next time the person speaks. Automatic voice tracking mode uses the built-in hypercardiod microphones in the set-top unit (instead of using the microphone pods) to triangulate the location of the current speaker and aim the camera at that person. If the person moves or another person speaks, the camera will retriangulate and re-aim the camera.

Note

The speed and the accuracy of automatic voice tracking largely relies on the quality of the acoustics and the amount of ambient

noise in the room. In some situations, triangulation of the speaker may take longer than expected.

To enable automatic voice tracking:

Press the AUTO button once on the remote control. A **Camera** icon with a motor attached appears in the upper right corner of the main monitor.

To turn off automatic voice tracking:

Pan, tilt, or zoom the camera. Any of these actions returns the camera to manual mode.

Enabling Automatic Tracking to Camera Presets

Automatic tracking to camera presets also triangulates the location of the speaker, but aims the camera at the closest camera preset to the location of the speaker. This is effective if the meeting participants are sitting or are otherwise stationary.

Note

The system senses the frequency range of the human voice. Therefore, the camera will not aim at noises outside of that frequency range, such as pencil tapping, coughing, or whistling.

To enable automatic tracking to camera presets:

1. Select the far or near camera and press the AUTO button twice to enable automatic tracking to preset positions.
2. The camera moves to the preset nearest to the person speaking.

To disable automatic tracking to camera presets:

Move the selected camera using the ARROW buttons on the remote control.

Automatic camera tracking is temporarily disabled under the following conditions:

- ❑ When your site is on MUTE.
- ❑ When there are loud noises coming from the far site or when the far site is speaking.
- ❑ When the near site moves the camera.

Controlling Sound

Setting the Volume

The volume of the ViewStation EX system is related to the volume on the television monitor.

To set the volume:

1. Set the volume on the television monitor to one-half its maximum volume.
2. Set the system's volume at a comfortable hearing level.
3. To adjust the volume on the system, press the VOL (Volume) buttons on the remote control.

Using the Mute Button

The mute button on the microphone pod is used to prevent far-site participants from hearing your conversation.

© Polycom, Inc. 2003

To activate the MUTE function:

Press the MUTE button on the remote control or on the microphone pod. Notice that the red light on top of the microphone pod is illuminated.

The **Mute** icon appears in the bottom left corner of the television monitor indicating to the near and far sites that mute is turned on. This mute indicator feature is supported in ISDN and IP calls. However, the mute indicator for IP calls is only supported by Polycom endpoints.

Controlling Sound Effects Volume

There is a separate volume control for the sound effects on the ViewStation EX system.

To adjust this volume setting:

1. Select **System Info > Admin Setup > Phone/Audio**.
2. Select the **Sound Effects Volume** field.
3. Adjust the volume setting by using the volume control buttons on the remote control.

Snapshots

This section explains how to send snapshots to the far site and how to use the **Snapshot Timeout** feature.

Sending Snapshots

You can send a snapshot from any local camera to the participants in a videoconference by using the snapshot feature on the ViewStation EX system.

To send a snapshot to meeting participants:

1. Press the SNAPSHOT button on the remote control.
2. Select a camera. Refer to Controlling Cameras for more information about selecting cameras.
3. Position the camera as necessary.
4. Press the SNAPSHOT button on the remote control again. The image is seen by all of the far sites in a call.
5. To preview your snapshot before sending it, press the SNAPSHOT button once and press 1, 2, or 3 for your desired camera source. You see a live preview from the selected camera while the far site still sees you.
6. To send the image, press the SNAPSHOT button again.

Snapshot Timeout

By default, all slides and snapshots are displayed for a period of four minutes. When the display times out after four minutes, the system automatically returns to live video. However, when this option is disabled, the snapshot or slide stays on screen indefinitely until the user presses the SNAPSHOT button on the remote control to return to live video.

© Polycom, Inc. 2003

To disable the Timeout feature:

1. Select **System Info > Admin Setup > Video/Camera > TV Monitors**.
2. In the **TV Monitors** screen, disable **Snapshot Timeout**.

Note

Both sites must have disabled the **Snapshot Timeout** option for this feature to work. If one side has not disabled **Snapshot Timeout**, the system reverts to its default settings.

Picture-In-Picture (PIP)

On a single monitor system, the picture from the local camera is always displayed as a small picture (a PIP) in the lower right corner of the screen during an active video call.

To swap the main and PIP images on a single monitor system:

1. Press the NEAR and SELECT buttons on the remote control.
2. Use the icon button on the screen to swap the main and PIP images.

On a dual monitor system, the second monitor always has the picture from the local camera, except when viewing a snapshot or presentation. After 15 seconds, the local video appears in a PIP window.

© Polycom, Inc. 2003

Graphics Cursor

The Graphics Cursor is an arrow (pointer) that you can display and move around on a slide. The cursor is a convenient way to point to a specific item or area of the slide while you are talking about the item or area.

General Information

The graphics cursor is available only in slide/snapshot viewing mode and works on any slide that has been received from:

- Someone pressing the SNAPSHOT button on the remote control
- A Microsoft PowerPoint presentation
- PolycomSnap

Note

The cursor is not available in preview mode.

The graphics cursor is displayed only for the current slide; that is, the slide that is displayed when you activate the cursor. If you go to another slide, the cursor is not displayed. You must display the cursor again.

You can use the graphics cursor on a graphics monitor or VGA monitor. The cursor is available only on a dual-monitor or multi-monitor system, not a single-monitor system using your main monitor only.

Any party in the video call that is viewing the slide can manipulate the graphics cursor. In addition, all parties can see the cursor as long as one site has displayed the cursor.

Using the Graphics Cursor

Displaying the graphics cursor. Press one of the numbers (1-9) on the remote control. The graphics cursor appears as a yellow arrow. The cursor is displayed for 30 seconds and then disappears from the screen.

To redisplay the cursor, press the number 5, which allows you to turn the graphics cursor on and off.

Moving the graphics cursor. You can move the graphics cursor around the screen and point to any specific object. You can move the cursor left and right, up and down, and diagonally.

Table 5-2 summarizes each graphics cursor function associated with a specific numeric button on the remote control.

Table 5-2. Graphic cursor function and remote control

Number on the Remote Control	Graphic Cursor Function
1	Moves the cursor diagonally up and to the left.
2	Moves the cursor up.
3	Moves the cursor diagonally up and to the right.
4	Moves the cursor to the left.
5	Toggles to display and not display the cursor.
6	Moves the cursor to the right.
7	Moves the cursor diagonally down and to the left.
8	Moves the cursor down.
9	Moves the cursor diagonally down and to the right.

© Polycom, Inc. 2003

6

Using Advanced System Features

This chapter describes how to configure and use advanced ViewStation EX features.

Topics in This Chapter

The following topics are included in this chapter.

Topic	Description	Page
Multipoint Calls (Optional)	This section contains detailed information on the following multipoint features: • multipoint dialing speed and firewall • the different methods that can be used to place multipoint video calls • Mixed Protocol Dialing feature • viewing modes • passwords • cascading capabilities • chair control	182
Dial-In Calling (Optional)	The Dial-In Calling feature lets users who are already in a videoconference answer and add an incoming video call. This section covers information about the number of calls combinations, and also explains how to set the Auto Answer mode for a multipoint call.	205

© Polycom, Inc. 2003

Topic	Description	Page
Conference on Demand (COD)	This feature allows you to bring multiple endpoints together in a videoconference on an unscheduled basis. Its implementation is covered in this section.	209
Streaming Video	This section contains instructions about how to enable streaming and view streams using Apple QuickTime.	212
Data Conferencing	This section explains how to enable data conferencing on the ViewStation EX system and how to use the ShowStation® IP, StreamStation™, and Microsoft NetMeeting.	216
People+Content	This section gives an overview of this dual streaming feature.	218

Multipoint Calls (Optional)

Your ViewStation EX system can be upgraded to support all of the multipoint call features described in this section. In order to upgrade your system to support multipoint calls, you will need to purchase a multipoint key from Polycom. For detailed instructions on how to upgrade your system to support multipoint calls, refer to Upgrading the System for Multipoint Calls in chapter 2.

When there are more than two parties participating in a video call, it is called a multipoint call. You can have up to four parties participating in a call with the ViewStation EX system.

If you have a BRI network interface, you can place multipoint calls over a BRI line or over IP (H.323) on the LAN. If you have a V.35/RS-449/RS-530 network interface, you can place multipoint calls only over IP on the LAN.

Before you Begin

Multipoint Dialing Speed Table

The following table shows the maximum allowable dialing speeds according to the number of sites in a call. All parties in a multipoint call must be connected at the same speed.

Table 6-1. Multipoint Dialing Speeds

Network Interface	Number of Sites in a Call	Maximum Speed For Each Party in the Call (in Kbps)	
		ISDN(H.320)	IP (H.323)
V.35/RS-449/RS-530	2 3 4	768	768 384 256
BRI	2 with 2 lines 2 with 3 lines 2 with 4 lines 3 with 2 lines 3 with 3 lines 3 with 4 lines 4 with 2 lines 4 with 3 lines 4 with 4 lines	256 384 512 128 192 256 64 128 128	768 768 768 384 384 384 256 256 256
IP (H.323) Only		Refer to H.323 speeds in this table.	

Mixed Protocol Dialing Speed Table

The following table shows the maximum allowable dialing speeds according to the number of calls and the type of calls (ISDN and IP) in a multipoint videoconference.

All parties in a multipoint call must be connected at the same speed. A multipoint videoconference can mix both IP and ISDN calls. For more information, see Mixed Protocol Dialing, on page 192.

© Polycom, Inc. 2003

Table 6-2. Mixed Protocol Dialing Speeds

Network Interface	Number of Endpoints and Type of Calls	Maximum Speed For Each Party in the Call (in Kbps)	
		ISDN(H.320)	IP (H.323)
BRI with Mixed Protocols (ISDN and IP)	2 lines with:		
	1 ISDN + 1 IP	256	256
	2 ISDN + 1 IP	128	128
	2 IP + 1 ISDN	256	256
	3 lines with:		
	1 ISDN + 1 IP	384	384
	2 ISDN + 1 IP	192	192
	2 IP + 1 ISDN	256	256
	4 lines with:		
	1 ISDN + 1 IP	384	384
	2 ISDN + 1 IP	256	256
	2 IP + 1 ISDN	256	256

Multipoint Downspeeding

When necessary, the ViewStation EX system is able to downspeed calls, meaning that it can dynamically reduce the data rate of the call to accommodate incoming calls. For example, if there is an existing point-to-point conference at 384 Kbps and an endpoint calls into the conference at 128 Kbps, the conference systems will downspeed the 384 Kbps call to 128 Kbps so that all the sites are connected at 128 Kbps. Conversely, incoming IP and ISDN calls dialed at speeds greater than the current conference speed are negotiated down to the current conference speed and admitted into the conference (rate matching).

However, if one of the systems cannot downspeed, the conference is kept at the original data rate, while the incoming call keeps its own data rate. The system with the lower data rate can send and receive audio. It can also send video, but cannot receive video. For example, if a system that is not capable of downspeeding connects at 384 kbps, the conference proceeds at 384 Kbps and admits the new

endpoint at 128 Kbps. The 128 Kbps endpoint will be able send and receive audio. It can also send video, but it cannot receive video. It can only see its own video instead.

Note

To indicate that a particular endpoint which cannot downspeed at the correct data rate is admitted to the multipoint call as an audio call only, the ViewStation EX MCU displays a picture of a telephone in the screen area corresponding to that endpoint call.

Downspeeding calls, either IP or ISDN, to allow another endpoint to be added to an existing call (Dial-In Calling) is supported for mixed protocol calls with systems that are capable of downspeeding. For more information about inbound calls, refer to Dial-In Calling (Optional), on page 205. For mixed protocol calls, see Mixed Protocol Dialing, on page 192.

For a 2 or 3-way conference, the maximum allowable downspeeding rate is 256 Kbps for ISDN and 384 Kbps for IP. For a 4-way conference, the maximum allowable downspeeding rate is 256 Kbps for IP, and 128 Kbps if all calls are made using ISDN.

Downspeeding/Resynchronization Compatibility

Downspeeding or Resynchronizing with iPower

Your system has the ability to downspeed or resynchronize correctly in an H.320 call with an iPower system and vice versa. The two systems resynchronize the call if an ISDN line is lost during the call. The call downspeeds in the event of a lower-speed, incoming call or when necessary to add another outbound call to create a multipoint conference.

© Polycom, Inc. 2003

Downspeeding or Resynchronizing with RadVision via IP Gateway

Your system has the ability to downspeed and resynchronize correctly in an H.320 call with a RadVision system and vice versa. The two systems resynchronize the call if an ISDN line is lost during the call, if H.320 framing is lost, or if CRC errors are encountered continuously. The call also downspeeds in the event of a lower-speed, incoming call or when necessary to add another outbound call to create a multipoint conference.

Multipoint Calls and Firewall Information

The following information specifies how many TCP and UDP ports need to be opened through a firewall for multipoint calls.

The port assignment is defined in the **Firewall & LAN Connection** screen, under **Use Fixed Ports**.

To define ports:

1. Access the **Firewall & LAN Connection** screen by selecting **System Info > Admin Setup > LAN/H.323 > LAN/Intranet > Firewall/LAN Connection**.
2. Select the option **Use Fixed Ports**.
3. Assign the correct number of fixed ports for your multipoint call. To obtain this information, refer to the table below.

Table 6-3. Firewall TCP/UDP Ports in Multipoint Calls

Number of Sites in Call	TCP Ports	UDP Ports
2	3230-3231	3230-3235
3	3230-3233	3230-3241
4	3230-3235	3230-3247

Placing Multipoint Video Calls

There are several ways to place multipoint video calls:

- ❑ Using the user interface's Manual Dialer (Video Phone). See Using the Manual Dialer (Video Phone).
- ❑ Using a multi-site local Address Book Meeting entry. See Using an Address Book Meeting Entry.
- ❑ Adding existing Address Book entries one at a time. See Using the Address Book.
- ❑ Using a combination of Manual Dialer and Address Book entries. See Using the Manual Dialer and the Address Book.

Note

In order to place multipoint calls and enable all multipoint-related capabilities, you must upgrade your system to support multipoint calls. For more information, refer to Upgrading the System for Multipoint Calls in chapter 2.

Using the Manual Dialer (Video Phone)

The following explains how to place a multipoint call manually by adding sites to your videoconference.

To place the first call:

a. On the main screen, highlight the **Video Call** icon and press the SELECT button on the remote control.

b. Use the numeric keypad on the remote control to enter the number you want to dial in the highlighted field.

Note

When you enter a number using the remote control, you can hear a voice confirmation of that number from your system. This feature can be enabled on the **General Setup** screen by selecting the **Keypad Audio Confirmation** option.

© Polycom, Inc. 2003

If you need to enter alpha characters, press the AUTO button on the remote control to bring up the on-screen keyboard.

Tip

Enter a dot. To enter a dot, press the right button on the remote control.
Shift key settings. The on-screen keyboard's Shift key has three settings:
- lower case: using the remote control, select the Shift key until it turns into a greyish down arrow.
- upper case: using the remote control, select the Shift key until it turns into a green up arrow. Only the next letter you enter is capitalized.
- caps lock: select the Shift key twice. A lock symbol appears on the key. All the letters are capitalized while the lock is visible.

c. Use the arrow buttons on the remote control to highlight the **Speed** icon on the screen and select the speed of your call from the list that appears.

d. Use the arrow buttons on the remote control to highlight the call type field (ISDN, IP, or AUTO). Press the SELECT button on the remote control to toggle and select the proper call type. If you select AUTO, the system will figure out automatically which call type to choose based on the format of the number you have entered.

e. Press the green CALL•HANG-UP button on the remote control to place your call. The number and the speed that you are dialing appear at the top of the screen.

The call progress indicators on the lower left side of the screen indicate that the call is going through.They change progressively from gray to blue, yellow, orange, and green as your call completes.

f. When the call completes, the party you called appears on the screen, and you appear in the picture-in-picture (PIP) window at the lower right. If you have a two-monitor

system, the party you are calling appears on the main monitor, and you appear on the second monitor.

To add sites to your video call:

a. Press the CALL•HANG-UP button on the remote control. The **Call Hang-up Choices** screen appears.

b. Highlight the **Add a Video Call** icon and press the SELECT button on the remote control. The **Video Phone** screen appears.

c. Enter the number you want to dial or use Speed Dial in the Address Book or Address Book entry. Press the CALL•HANG-UP button on the remote control to place the call. The video call connects.

d. Repeat steps a through c until all of the sites are connected.

Using an Address Book Meeting Entry

The following explains how to create a multipoint Address Book meeting entry and place a multipoint call using that entry.

If you delete one of the single-site entries that make up one of your multipoint meeting entries, the single-site (multipoint) entry is automatically removed from your Address Book meeting entry.

To create a multipoint Address Book meeting entry:

1. Highlight the **New** icon in the Address Book and press the SELECT button on the remote control. The **New Address Book Entry** screen appears.
2. Highlight the **Multi-Site** icon and press the SELECT button on the remote control. The **Multi-Site Meeting** screen appears
3. Use the on-screen keyboard to enter a name for the meeting.
4. Highlight the **Add** icon to add parties to your call from the Address Book. The **Adding To Meeting** screen appears.

© Polycom, Inc. 2003

5. Highlight the entry you want to add and press the SELECT button on the remote control. The multipoint Address Book entry screen appears with that entry added.
6. Repeat Steps 4 and 5 until you have entered all of the sites for the call.
7. If the site being added is a OneDial number (meaning that it has both IP and ISDN numbers displayed as one entry), the user can change the call type of the individual entry by selecting the appropriate type in the Type field.
8. Select a dialing speed for the call in the **Speed** field. All of the sites in the call will be dialed at this speed regardless of the dialing speeds set for the individual Address Book entries.
9. Highlight the **Save** icon and press the SELECT button on the remote control to return to the main **Address Book** screen.

To place a multipoint meeting call from the Address Book:

1. Select the multipoint meeting entry you created in the Address Book.
2. Press the CALL•HANG-UP button. All of the sites are called automatically.

Using the Address Book

The following explains how to place a multipoint call by adding existing local or Global Address Book sites one at a time.

To place the first call:

1. Select the **Address Book** icon on the main screen and press the SELECT button on the remote control. The main **Address Book** screen appears.
2. Highlight the first site name and select it with the remote control SELECT button.
3. If the Address Book entry for that site is *not* a OneDial number (both IP and ISDN numbers displayed as a single entry), the number is being dialed.

   If the Address Book entry is a OneDial number, then the call is dialed based on the **Primary Call Type Choice** option **(Admin Setup > LAN/H.323 > Global Address > Preferences > Advanced Preferences)**. If the primary call type is **IP**, then the IP number is dialed. If the primary call type is **Manual**, a dialog box appears asking you to select either **IP** or **ISDN**. Highlight the appropriate protocol and select it with the SELECT button on the remote control. The site number is automatically dialed.

To add sites to your video call:

1. Press the MENU button on the remote control to go back to the main screen.
2. To add subsequent sites, repeat steps 1 through 3 from the above section describing how to place the first call until all sites are connected.

Using the Manual Dialer and the Address Book

This method is a combination of Manual Dialer and Address Book dialing. Refer to Using the Manual Dialer (Video Phone), on page 187 and to Using the Address Book, on page 191.

© Polycom, Inc. 2003

Mixed Protocol Dialing

Mixed Protocol Dialing allows users with IP (H.323) and ISDN (H.320) systems to participate in a multipoint videoconference at the same time. With this feature, videoconferencing is not limited to either H.320-only calls or H.323-only calls. All calls are connected at the same speed. Currently, downspeeding is automatically performed when necessary.

Mixed Protocol Dialing takes advantage of OneDial by allowing endpoints to dial your system by name from the Global Address Book without having to worry about which number to dial or which dialing protocol to use. For more information about OneDial, refer to the *Integrators' Reference Manual for ViewStation EX, ViewStation FX, and VS4000.*

Note

This feature is optional. In order to enable this feature and all multipoint-related capabilities, you must upgrade your system to support multipoint calls. For more information, refer to Upgrading the System for Multipoint Calls in chapter 2.

Different Ways to Place a Mixed Protocol Call

A Mixed Protocol call can be placed in one of the following five ways using the ViewStation user interface:

- **Using the Manual Dialer** (**Video Phone** screen). With this method, the user establishes the first call, then adds a second, and possibly a third call. The Manual Dialer allows the user to select IP or ISDN. For more information about how to place this type of call, refer to Using the Manual Dialer (Video Phone), on page 187.
- **Creating an Address Book meeting entry**. This entry consists of mixed ISDN and IP sub-entries. The user can decide what type of call will be made when creating or editing the entry. For more information about how to place this type of call, refer to Using an Address Book Meeting Entry, on page 189.

- **Using the Global Address Book**. The user establishes the first call, adds a second, and maybe a third call using the Global Address Book. If the selected entry is a OneDial number, make sure the **Primary Call Type Choice** option on the **Advanced Address Book Preferences** screen **(Admin Setup > LAN/H.323 > Global Address > Preferences > Advanced Preferences**) is configured to be **Manual**. Every time an additional call is added, the user is prompted with the message "dialing IP or ISDN". If the selected entry is not a OneDial number, the **Primary Call Type** does not affect how calls are made. For more information about how to place this type of call, refer to Using the Address Book, on page 191.

- **Using a combination of Manual Dialer and Global Address Book**. Establish the first call, then add a second and a third call using the Manual Dialer and the Global Address Book. For more information about how to place this type of call, refer to Using the Manual Dialer and the Address Book, on page 191.

- **Through Dial-In Calling**. A mixed protocol call can also be created if the user is already in a point-to-point call (IP or ISDN) and the user receives an incoming call that uses the other protocol (IP or ISDN). For more information about the Dial-In Calling feature, refer to the following section Dial-In Calling (Optional), on page 205.

Additional Information

Supported ViewStation EX Functionality

- Dual streams functionality when using Visual Concert FX is supported in mixed protocol calls.

- Downspeeding calls, either H.323 or H.320, to allow another endpoint to be added is supported for mixed calls with systems that are capable of downspeeding.

- PowerPoint presentations, snapshots, PolycomSnap, and interoperability with Visual Concert PC are supported in mixed protocol calls.

© Polycom, Inc. 2003

- ❑ Far-end camera control is supported in presentation or full-screen mode with Polycom endpoints in mixed protocol calls.
- ❑ Audio (POTS) add-ins are supported in mixed protocol calls.
- ❑ All multipoint modes are supported in mixed protocol calls.
- ❑ Chair control is supported in mixed protocol conferences.

Current Limitations

- ❑ Once an H.323 endpoint is added to a bridge call, any open T.120 sessions from H.320 calls will be terminated. T.120 is not supported in mixed bridge calls.
- ❑ In a 336-Kbps multipoint call between an H.320 and an H.323 systems, the H.320 system transmits and receives 30 frames per second. However, because of the flow control threshold, the H.323 system can only transmit 15 frames, but it can still receive 30 frames.

Multipoint Viewing Modes

You can select four different viewing modes for the remote sites in a multipoint call from the **Multipoint Setup** screen:

- ❑ Automatic Mode
- ❑ Discussion Mode
- ❑ Presentation Mode
- ❑ Full Screen Mode

Note

This feature is optional. In order to enable this feature and all multipoint-related capabilities, you must upgrade your system to support multipoint calls. For more information, refer to Upgrading the System for Multipoint Calls.

To access the Multipoint Setup screen:

On a system with IP only, select **System Info > Admin Setup > Multipoint Setup** or select **System Info > User Setup > Multipoint Mode.**

On a system with an ISDN network interface, select **System Info > Admin Setup > Video Network > Multipoint Setup.**

Mode Description

The default mode is **Auto**, which switches between **Discussion** and **Presentation** modes automatically, depending on the conversational style of your meeting.

Following is a description of the four multipoint modes and the **Auto Answer Multipoint** setting:

- **Auto**—In **Auto** mode, the system determines the optimal viewing mode based on the interaction between the sites. If more than one site is talking at the same time, the system uses **Discussion** mode.

  If one site is talking uninterrupted, the system uses **Presentation** mode. The system takes about 15 seconds to decide whether there is a single presenter before switching to **Presentation** mode. If one of the far sites interrupts the presenter for several seconds during **Presentation** mode, the system immediately switches to **Discussion** mode.

- **Discussion**—In **Discussion** mode, all of the sites can see everyone in the meeting at the same time. This feature is sometimes referred to as **Continuous Presence** mode. You see yourself as one of the sites. Your picture might be slightly delayed if you are in a multipoint call. This is normal. The far sites hear your voice synchronized with your motion.

  If you are using a single-monitor system, sites appear on screen in as many windows as there are sites in the call. If you are using a dual-monitor system in a four-way call, the near site (you) appears in the second television monitor and the far sites appear in windows on the first television monitor. If you are using a dual-monitor system in a three-way call, each far site appears full screen on each monitor and the near site appear in PIP window on the main monitor.

© Polycom, Inc. 2003

- **Presentation**—In **Presentation** mode (also called voice-activated switching), the person who is speaking appears full screen to the far sites. If you are using a single-monitor system, the speaker or presenter appears full screen on your monitor.

  Your picture automatically appears in a PIP window when you raise your remote control. If you are using a dual-monitor system, the person speaking appears in the main monitor, and the other parties appear in windows on the second monitor.

- **Full Screen**—In **Full Screen** mode, every site in the call sees the speaker full screen.

- **Auto Answer Multipoint**—This setting is used to determine how the system will handle an incoming call in a multipoint videoconference. This setting only matters if the system is in a call.

  Select the appropriate option from the drop-down menu in the **Auto Answer Multipoint** field. These options are **No**, **Yes**, and **Do Not Disturb** and are described below**.**

  - **No:** If **Auto Answer Multipoint** is set to **No** and there is an incoming call, the user will be prompted with a message "You have a video call. Would you like to answer?" This message can be followed by a far-site video number and a far-site name if they are available. If the user selects **Yes**, the call will be added into the ongoing conference. If the user selects **No**, the call will be rejected. The factory default is set to **No**.

  - **Yes:** If Auto Answer Multipoint is set to **Yes**, any incoming call will be connected automatically. The screen will split into a multipoint call progress screen as the incoming call is answered.

  - **Do Not Disturb:** If Auto Answer Multipoint is set to **Do Not Disturb**, the user is not notified of the incoming call. The site which placed the call receives a Far Site Busy code (H.320) or Call Rejected (H.323).

Switching Modes

To switch multipoint meeting modes:

1. From the main calling screen, select **System Info > User Setup**.

Note

If you are switching modes during a multipoint call, press the MENU button on the remote control to go to the main calling screen.

2. Select the **MP Mode** field. The **Multipoint Setup** screen appears.
3. Select **Auto, Discussion, Presentation,** or **Full Screen** mode.
4. Press the MENU button on the remote control until you return to the main screen.

Multipoint Conference Password

A multipoint conference password is sometimes required for calls dialed into your MCU or dialed out to a third-party MCU. Your system can be configured to send or set the **Meeting Password** as the multipoint conference password to the MCU.

Note

This feature is optional. In order to enable this feature and all multipoint-related capabilities, you must upgrade your system to support multipoint calls. For more information, refer to Upgrading the System for Multipoint Calls.

The Meeting Password works with the ViewStation EX system's embedded MCU and other external bridges that support meeting passwords.

© Polycom, Inc. 2003

Setting Up the Meeting Password

To set the Meeting Password as your multipoint conference password:

1. From the main screen, select **System Info > User Setup (**or **System Info > Admin Setup > Security)**.
2. In the **User Setup** screen, under **Meeting Password**, enter your password.

   Your configured **Meeting Password** is automatically and transparently sent as the multipoint conference password to the multipoint conference.

Using the Meeting Password

The Meeting Password can be used for the following purposes:

- ❑ To provide dial-in protection for the ViewStation EX MCU. If dial-in password protection has been set on the MCU, all the sites dialing into that MCU need to provide a password in order to join the videoconference. Refer to MCU Meeting Password Protection in Multipoint Dial-In Calls on page 199.
- ❑ To be able to dial into an MCU or a bridge that has a password set (see above item). The site calling into the MCU needs to send the established Meeting Password to the MCU.
- ❑ To view slides on the Web interface. Refer to Viewing a Slide Presentation on page 238.
- ❑ To view a meeting/stream on the Web interface. Refer to Viewing a Meeting on page 240.
- ❑ To access Closed Caption on the Web interface. Refer to PolycomSnap on page 243.

MCU Meeting Password Protection in Multipoint Dial-In Calls

The following table describes how the ViewStation EX MCU handles the Meeting Password as the multipoint conference password when dial-in sites are calling into the ongoing conference, based on the **Auto Answer Multipoint** and the **Meeting Password** settings.

To access Auto Answer Multipoint:

Select **System Info > User Setup** or **System Info > Admin Setup > General Setup.**

For information about **Auto Answer Multipoint**, see on page 207**.** For information about dial-in calls in multipoint videoconferences, refer to Dial-In Calling (Optional) on page 205.

Table 6-4. MCU Meeting Password Protection

Auto Answer Multipoint and MCU Meeting Password Settings	Resulting MCU Handling of Meeting Password
Auto Answer Multipoint mode is set to Do Not Disturb. -and- **A Meeting Password is set on the MCU.**	The ViewStation EX MCU will not acknowledge any incoming, dial-in calls. The MCU behaves as if it does not have a Meeting Password .
Auto Answer Multipoint mode is set to No. -and- **A Meeting Password is set on the MCU.**	The ViewStation EX MCU behaves as if it does not have a Meeting Password. The MCU ViewStation EX should answer any incoming, dial-in calls manually. This means that the user will be prompted with the message “You have a video call. Would you like to answer?” and can answer Yes or No. This message can be followed by a far-site video number and a far-site name if they are available.

© Polycom, Inc. 2003

Table 6-4. MCU Meeting Password Protection (Continued)

Auto Answer Multipoint and MCU Meeting Password Settings	Resulting MCU Handling of Meeting Password
Auto Answer Multipoint is set to Yes.	The general rule is that all the sites which dial into the ViewStation EX MCU need to provide a Meeting Password to that MCU. However there are two exceptions: **Exception 1—** If the first site has been in a call with the MCU for over 30 seconds and the second site calls into the MCU: >> The first site will not be prompted for a password. The second site will be prompted for the MCU password if the Meeting Password has been set on the MCU. If the second site dials in within 30 seconds of the original connection between the MCU and the first site, both sites will be prompted for the MCU password if the Meeting Password on MCU has been set. Before the password is validated, the MCU sees video of the far site and the far site itself is in a loopback mode. If the password provided is valid, the far site should be able to join the conference. If the password is invalid, cancelled, or times out, the far site will be hung up. Far sites are given one chance to enter the correct password. **Exception 2—** When sites that are not able to send passwords dial into a ViewStation EX MCU call which has a meeting password set: >> A message appears on the MCU (“You have a video call that is not providing a password. Would you like to answer?”). This message might be followed by a far-site video number and a far site name if they are available. The thirty-second rule explained under Exception 1 applies here too.

Multipoint Cascading Capabilities

ViewStation EX systems can be cascaded with other ViewStation EX, ViewStation FX, or VS4000 systems to place a multipoint ISDN (H.320) call, a H.323 (IP) call, or a mixed protocol (ISDN and IP) call with up to ten sites.

Note

This feature is optional. In order to enable this feature and all multipoint-related capabilities, you must upgrade your system to support multipoint calls. For more information, refer to Upgrading the System for Multipoint Calls.

The Cascading feature allows to add more video and audio participants to a multipoint video call, without the need for a bridge. Each of the second-level ViewStation EX systems in a four-site multipoint call can call up to two more video and one audio site. The called placed to the audio site is a POTS call. Up to ten total video sites and four total audio sites can participate in the call using the built-in MCU.

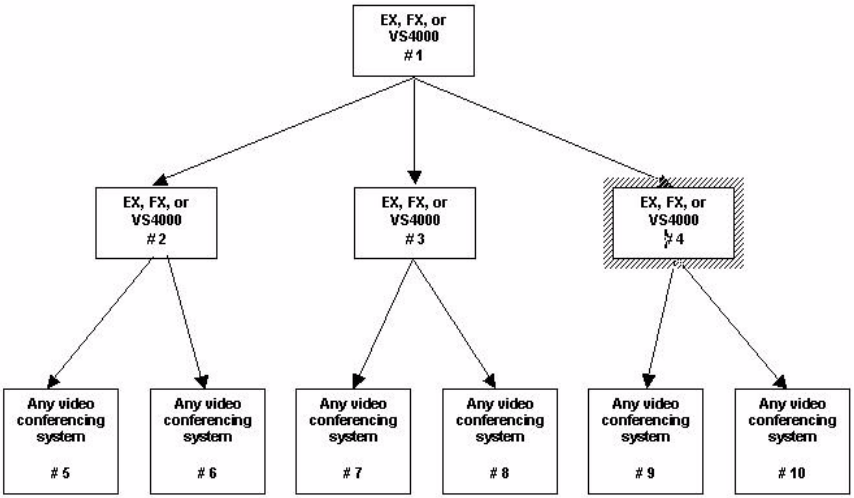
EX, FX, or VS4000 #1
EX, FX, or VS4000 #2
EX, FX, or VS4000 #3
EX, FX, or VS4000 #4
Any video conferencing system #5
Any video conferencing system #6
Any video conferencing system #7
Any video conferencing system #8
Any video conferencing system #9
Any video conferencing system #10

Figure 6-1. Cascading 10 Sites in a Multipoint Call

© Polycom, Inc. 2003

Chair Control

General Information

Chair Control is a feature that allows any ViewStation EX in a multipoint call to do the following:

- ❑ Select which sites to view
- ❑ Select which site broadcasts its video to all other sites
- ❑ Disconnect sites from a multipoint call

Any site in the call can access the **Chair Control** screen. However, only one site can have chair control at a time. That site must release the chair control before another site can acquire it.

Chair Control is not supported in mixed protocol conferences. For more information, refer to Mixed Protocol Dialing on page 192.

Note

This feature is optional. In order to enable this feature and all multipoint-related capabilities, you must upgrade your system to support multipoint calls. For more information, refer to Upgrading the System for Multipoint Calls.

To access the **Chair Control** screen, you must be in a multipoint call. Press the NEAR button on the remote control and select the **Gavel** icon to access the following screen:

Figure 6-2. Chair Control Screen

The icons on the left of the screen are **Chair Control Actions**. The bottom right-center icons are the sites in the call. Use the right and left arrow keys on the remote control to select sites in the call.

If there are more than three sites in the call, you can scroll to the right to see those sites. Use the up and down arrow keys to select actions to perform on the highlighted site.

You can perform the following actions in chair control.

Actions Available to All Sites

Any site in the multipoint call can perform these actions:

- **Acquire chair**—Enables Chair Control for your site. Other sites in the call cannot acquire the chair until you release it. If your site has the chair, a small gavel appears in chair control mode. If you attempt to acquire the chair while another site has it, a message appears telling you that another site has the chair.
- **View Site**—Displays the selected site in the live window. View Site overrides voice activated switching and any broadcaster actions from the chair. It does not affect video at other sites.

© Polycom, Inc. 2003

- **Stop Viewing Site**—Causes your system to go back to voice-activated switching or broadcaster actions as set by the chair.
- **Make me the Broadcaster**—Sends a request to the chair control site to force all sites to view your site.

Actions Only Available to the Chair Controller

Only the site with the chair can perform these actions:

- **Release Chair**—Disables chair control for your site. Another site in the call can now acquire the chair.
- **Select Broadcaster**—Forces all sites to view the selected site, and disables voice-activated switching.
- **Voice Switching**—Enables voice-activated switching. The site that is speaking appears in full-screen mode to all sites in the call.
- **Disconnect Site**—Disconnects the selected site from the multipoint call.
- **End the Conference**—Disconnects all sites in the multipoint call.

Dial-In Calling (Optional)

The Dial-In Calling feature allows users who are already in a videoconference to answer and add an incoming video call. Thus, an established point-to-point call receiving and accepting an incoming call becomes a multipoint videoconference.

Furthermore, if the incoming call is of a different type than the already-established call or calls, the videoconference is now a mixed protocol call. For example, the established call could be IP and the incoming call could be ISDN. For more information about mixed protocol calls, refer to Mixed Protocol Dialing, on page 192.

Downspeeding, the ability to reduce the data rate of the call dynamically, is performed by the system when necessary. Incoming calls (both IP and ISDN) dialed at speeds greater than the current conference speed will be negotiated down to the current conference speed and admitted into the conference (rate matching).

If a password has been set on the ViewStation EX system that acts as the MCU, a Meeting Password will be required from each site calling into the conference. For more information, refer to Multipoint Conference Password on page 197.

Note

This feature is optional. In order to enable this feature and all multipoint-related capabilities, you must upgrade your system to support multipoint calls. For more information, refer to Upgrading the System for Multipoint Calls.

Dial-In Calling Scenarios

With an Existing Point-to-Point Call

The following table assumes that there is already an established point-to-point call (1 MCU and 1 site).

© Polycom, Inc. 2003

Note

The MCU is embedded in the ViewStation EX system.

The table describes the number of incoming calls that can be separately or simultaneously received by the ViewStation EX embedded MCU (1 site) already in a point-to-point call with another site (1 site) and the resulting number of sites for that multipoint call. For example, an incoming call (1 site) to an existing point-to-point call (2 sites, one of which is the MCU) results in a 3-way multipoint call.

Table 6-5. Dial-In Calling with an Existing Point-to-Point Call

Number of Incoming Calls to MCU	Result
1	3-way multipoint call
2	4-way multipoint call
2 simultaneous	4-way multipoint call

With no Existing Point-to-Point Call

The table describes the number of calls that can be separately or simultaneously placed to the ViewStation EX embedded MCU (1 site) and the resulting number of sites for that multipoint call. For example, three incoming calls (3 sites) to the MCU (1 site) result in a 4-way multipoint call.

Table 6-6. Dial-In Calling with no Existing Point-to-Point Call

Number of Incoming Calls to MCU	Result
1	1 point-to-point call (2-way call)
2	3-way multipoint call
3	4-way multipoint call
2 simultaneous	3-way multipoint call
3 simultaneous	4-way multipoint call

Auto Answer Multipoint Mode Configuration

It is necessary to set the Auto Answer Multipoint mode to determine how the system will handle an incoming call.

Note

This feature is optional. In order to enable this feature and all multipoint-related capabilities, you must upgrade your system to support multipoint calls. For more information, refer to Upgrading the System for Multipoint Calls.

Setting the Auto Answer Multipoint Mode

To set the Auto Answer Multipoint mode:

1. Select **System Info > User Setup** or select **System Info > Admin Setup > General Setup.**
2. In the **Admin Setup** screen (or the **General Setup** screen), select the appropriate option from the drop-down menu in the **Auto Answer Multipoint** field. These options are **No**, **Yes**, and **Do Not Disturb** and are described below.

Note

All the following information assumes that there is already an ongoing call between two sites or possibly three sites.

- **Yes**—If the Auto Answer mode is set to **Yes**, any incoming call will be connected automatically. The default Auto Answer Multipoint mode is **No**.
- **No**—If the Auto Answer mode is **No** and there is another incoming call, the user will be prompted with a message

© Polycom, Inc. 2003

"You have a video call. Would you like to answer?" If the user selects **Yes**, this call will be added into the ongoing conference. If the user selects **No**, the call will be rejected.

- **Do Not Disturb**—If the Auto Answer mode is **Do Not Disturb**, the user is not notified when there is an incoming call. The site which placed the call will receive either a "call rejected" or "dialed site busy" message.

Conference on Demand (COD)

This feature allows you to bring multiple endpoints together in a videoconference on an unscheduled basis. With Conference on Demand, users can place multipoint video calls to remote participants by only using their names and/or the numbers that correspond to those remote locations. Users don't need to save the meeting name before making the meeting call.

Note

Release 5.0 of PathNavigator software, which supports ad-hoc multipoint videoconferencing, is required for Conference on Demand (COD) to work on your system.

Implementation of Conference on Demand

Users who want to use COD using sites from their Global Address Book (GAB) that have both ISDN and IP numbers must decide whether the number they are adding for that site is ISDN or IP.

Users who want to use COD using GAB sites that are ISDN numbers must have their MGC located in the same country code and same area code as their system. Otherwise, the numbers sent to the MGC to dial the far endpoints in the conference may not be dialed correctly. The Global Address Book normalizes global numbers to the endpoints for that endpoints location.

The endpoint that placed the COD call cannot add a site that dropped out of the call. All calls have to be dropped and the COD needs to be initiated again. At this point, there is limited feedback information available to the user who placed a COD call as to whether the MGC has enough ports to complete the call.

There is limited feedback information available to the user who places the COD call as to why any site in the conference failed to connect to the MGC.

© Polycom, Inc. 2003

COD User Interface Screens

The COD-related user interface screens include the **Multipoint Call** screen, the **Video Phone** screen, and the **Gateway** and **Gatekeeper** screens.

Multipoint Call Screen

The **Multipoint Call** screen allows you to create a new meeting entry or edit an existing meeting entry. You can make calls directly from this screen without the need of saving the meeting name.

When the calling speed is 2 x 56 or 2 x 64, the screen displays two edit lines for manual entry. For any other speed, the screen displays one edit line for manual entry.

On this screen, you can:

- ❑ Enter a number or name from the manual entry edit box.
- ❑ Select an address book entry by clicking the **Address** button. The site can be added to the meeting participants list.
- ❑ Remove a currently selected item from the meeting participants list by clicking the **Delete** button.
- ❑ Change the calling speed by selecting another speed from the available call speed list.
- ❑ Make calls from this screen by pressing the CALL-HANG-UP button on the remote control.
- ❑ Save the meeting name by clicking the **Save** button.
- ❑ Leave the screen using the **Menu** icon without saving the meeting name.

Video Phone Screen

The **MultiPoint** field can be used to navigate to the **Multipoint Call** screen.

Gatekeeper Screen

If PathNavigator is used, three options are displayed under **Dial Multipoint Calls from PathNavigator**?:

- ❑ Never
- ❑ Always
- ❑ When calling 4 sites or more

Figure 6-3. Gatekeeper Screen

The default is **When calling 4 sites or more**. You can enable or disable **When calling 4 sites or more**, if PathNavigator is available. If this option is enabled, all the meeting calls are made through the external MCU. If it is disabled, all the meeting calls with three sites are made through the system's internal MCU or the meeting calls cannot be placed when the sites are over three.

© Polycom, Inc. 2003

Streaming Video

Using the streaming feature on the ViewStation EX system allows other videoconferencing participants to watch your presentations or meetings live from a PC.

Enabling Streaming

To enable streaming on your system:

1. To set your system to allow streaming, select **System Info > Admin Setup > LAN/H.323 > Streaming.**
2. Enable the **Allow Streaming** option.

Figure 6-4. Streaming Screen

Note

Once you have enabled streaming, a **Call Type** icon appears on your main screen indicating that you are ready to start streaming.

Configuring Streaming Options

You can now configure the following options on the **Streaming** screen.

- **Speed**—Press the SELECT button on the remote control and select the speed at which you want to stream video.
- **IP Multicast Address**—A default address is entered for you based on your serial number. This ensures that you do not have the same multicast address as another system. You can change this address.
- **Number of Router Hops**—Enter the number of routers you want the streaming video to pass through. This allows you to control who can see your streaming video.
- **Audio Port**—This is a fixed port. This may be changed by your network manager if a user needs to go through the firewall.
- **Video Port**—This is a fixed port. This may be changed by your network manager if a user needs to go through the firewall.
- **Allow Streaming**—When this option is enabled, the icon on the main screen of the user interface changes from **Telephone** to **Call Type**. Click **Call Type** to access the **Streaming Call** screen. In the **Streaming Call** screen, you can set a **Meeting Password**. Click the **Start** icon to start streaming.
- **Enable Streaming Announcement**—When this option is enabled, the names of users logged on to your system are displayed on screen.
- **Restore Defaults**—Selecting this option restores the **Speed, IP Multicast Address, Number of Router Hops, Audio Port**, and **Video Port** defaults.

© Polycom, Inc. 2003

Configuring Streaming for Apple QuickTime

Enabling and Starting Streaming on the ViewStation EX

To enable streaming on your system:

1. Go to the **Streaming** screen (**System Info > Admin Setup > LAN/H.323 > Streaming**).
2. Make sure that **Enable Streaming Announcement** is enabled. It should be set by default.
3. Enable **Allow Streaming**.

To start sending a stream:

1. From the main screen, select **Call Type**.
2. Select **Streaming Call**. Decide if you need a password.
3. Click **Start**. A **Streaming** icon is now displayed on the upper left corner of your television screen.

You can start streaming before or after you place a video call. If you are streaming a presentation, you can go ahead and start the presentation immediately.

Viewing Streaming with Apple QuickTime on the PC

To view the stream with Apple Quick Time on your PC:

1. Make sure you have enabled and started streaming on your ViewStation EX system as described in "Enabling and Starting Streaming on the ViewStation EX."
2. To view streaming using Apple QuickTime:
   a. Open a Web browser.
   b. Enter the IP address of your ViewStation EX system in the browser address field.

c. Click on the **View a Meeting** icon.

d. In the **View a Meeting** screen, click the **View Streaming Video** icon.

e. Enter your user name and password when prompted.

f. Apple QuickTime will launch within your browser.

Note

If you do not have Apple QuickTime installed, you will be prompted to install it from the Polycom/QuickTime Web page. Repeat steps 1 through 3 after installation.

© Polycom, Inc. 2003

Data Conferencing

The ViewStation EX system is T.120-compliant and supports data conferencing when paired with either a ShowStation IP or Microsoft NetMeeting.

Data conferencing features are available only on point-to-point video calls or with external H.320 bridges/MCUs that support this feature.

Data conferencing is only available during H.320 calls and must be supported by far site systems.

To access the Data Conference screen:

Select **System Info > Admin Setup > Data Conference.** The **Data Conference** screen appears.

Figure 6-5. Data Conference Screen

From this screen, you can enable data conferencing through Microsoft NetMeeting or a ShowStation IP as described in the following section.

Note

The **Data Conference** screen will display the IP address or name of the data conferencing device. This would be the IP address of the

StreamStation, WebStation or ShowStation itself, or, the IP address of the PC on which Netmeeting is running.

Enabling Data Conferencing on your System

The following explains how to enable the data conferencing capabilities on the ViewStation EX system.

To enable data conferencing:

1. Select **System Info > Admin Setup > Data Conference**. The **Data Conference** screen appears.
2. Enable either the NetMeeting or ShowStation IP option. The ShowStation IP option appears only if a ShowStation is connected to the ViewStation EX or the LAN.

Note

Data conferencing is only available during H.320 calls and must be supported by far-site systems

Using a ShowStation IP

For more information on ShowStation IP, see ShowStation IP on page 43.

Using Microsoft NetMeeting

For more information about data conferencing using NetMeeting, refer to NetMeeting on page 245 in chapter 7.

© Polycom, Inc. 2003

People+Content

The Polycom People+Content (P+C) standard, implemented on the ViewStation EX, ViewStation FX, VS4000, MGC 5.0, iPower 5.0, and PathNavigator products, allows live video and live graphics to be transmitted and received with all the above-listed Polycom products.

In a multipoint videoconference, all endpoints see the same content video, and the people video can be displayed in either discussion or voice-switched mode, depending on the MCU settings.

If all endpoints (ViewStation EX, ViewStation FX, VS4000, or iPower) to which your system is connected support P+C, then the systems automatically enable this feature. The MGC has to be manually configured prior to the start of a conference to support this new standard.

Compatibility

Radvision Onlan and ECS gatekeepers do not support People+Content in routed mode. The People+Content format is not supported through the Radvision Onlan 2.2 and the Radvision ECS 2.02 gatekeepers if the gatekeeper is set for routed mode. The People+Content format functions in direct mode**.**

People+Content and PathNavigator compatibility. ViewStation EX systems with version 5.0 can only send the previous version of dual streams to another ViewStation EX, FX, or VS4000 system with version 5.0 when registered with PathNavigator 1.10. ViewStation EX systems 5.0 cannot send dual streams to an iPower version 5.0 when registered to PathNavigator version 1.10. ViewStation EX, FX, and VS4000 systems send the new People+Content format to other ViewStation EX, FX, VS4000, or iPower systems if they are registered to PathNavigator 5.0.

7

Using the System with a PC

This chapter describes how to use your ViewStation EX system in conjunction with a PC.

Topics in This Chapter

The following topics are included in this chapter.

Topic	Description	Page
Before you Begin	This section explains how to set up and connect your PC to a ViewStation EX system and how to configure your Web browser as a prerequisite to be able to use the system Web interface.	220
Accessing the Web Interface	This section explains how to access your system's main Web screen.	228
Features of the Web Interface	This section explains how to place a call, load and select a presentation, view a slide presentation, and view a meeting, and use Closed Caption.	229
PC-Resident Applications	This section explains how to access and PolycomSnap, NetMeeting, and the Polycom Management Access Control Wizard.	243
System Setup and Remote Management	This section covers information about the Web interface system setup and remote management tools.	253
Streaming	This sections provides instructions about streaming from the Web interface.	261

© Polycom, Inc. 2003

Before you Begin

In order to access and use the ViewStation EX Web interface, you need to:

- ❑ .Set up and connect your PC to a ViewStation EX system. See the following sections:
  - PC Requirements
  - Connecting the PC and the ViewStation EX to the LAN
  - Connecting the PC Directly to a ViewStation EX not on the LAN
- ❑ Configure your Web browser to work correctly with the ViewStation EX Web interface. See Configuring your Web Browser.

PC Requirements

You need the following items to connect the PC to the ViewStation EX system:

- ❑ Microsoft Windows 98 or newer
- ❑ Desktop PC connected to a LAN or laptop with a 10 Mbps or 100 Mbps Ethernet LAN card
- ❑ Ethernet cable
- ❑ Microsoft Internet Explorer 5.5 or higher (recommended) or Netscape 6.0 or higher

Connecting the PC and the ViewStation EX to the LAN

1. To connect the system to the LAN:
   a. Insert one end of the provided orange RJ-45 cable into the orange LAN port on the back of the system.

b. Insert the other end of the cable into a port on the LAN. This connection is shown in the *QuickStart*.

2. To connect the PC to the system:

a. Insert one end of the provided blue RJ-45 cable into the blue PC port on the back of the system.

b. Insert the other end of the cable into the Ethernet port on your computer.

3. Power on the system.

4. Select **System Info > Admin Setup > LAN/H.323 > LAN/Intranet** to configure the system's LAN/H.323 settings. The **LAN & Intranet** screen appears.

Figure 7-1. LAN & Intranet Screen

5. In the **LAN & Intranet** screen, configure the system DHCP settings, as follows:

© Polycom, Inc. 2003

If your LAN uses DHCP:

a. Select **Client** in the **DHCP** field to enable your system to obtain an IP address from a server on your network.

b. After you have changed the DHCP settings, a message lets you know that your system will have to be reset in order to save the changes. Select **Yes**. Another message informs you that your system is about to restart.

c. Select the **System Info** icon to go to the **System Information** screen. Your system's IP address should appear in the **IP Address** field.

Note

If the IP address field displays "...waiting...," your system did not get an address from a server on your LAN. Check the LAN connection on the back of your system and try again. When your system is properly connected, the green light on the connector is illuminated and the orange light is blinking.

If your LAN does not use DHCP:

a. Select **Off** in the **DHCP** field and manually enter the IP address, subnet mask, and gateway address provided by your system administrator.

b. **On the PC side:** Once your PC is connected to the your system, make sure it is properly configured. This can be a rather complex process that should be best handled by your network administrator.

c. After you have changed the DHCP settings, a message lets you know that your system will have to be reset in order to save the changes. Select **Yes**. Another message informs you that your system is about to restart. For instructions about how to access your system's Web interface, proceed to Accessing the Web Interface on page 228.

Connecting the PC Directly to a ViewStation EX not on the LAN

Complete the following steps to connect your PC to a ViewStation EX system that is *not* on the LAN:

1. To connect your PC to your system:
   a. Insert one end of the provided blue RJ-45 cable into the blue PC port on the back of your system.
   b. Insert the other end of the cable into the Ethernet port on your computer.
2. Power on your system.
3. To connect to your desktop or laptop computer, you need to set your system as a DHCP server. This assumes that the option **Allow System to be a DHCP Server** was enabled during software upgrade of your system. Enable **DHCP Server** as follows:
   a. Select **System Info > Admin Setup > LAN/H.323 > LAN/Intranet** on the user interface.
   b. Press the up arrow on the remote control to go to the **DHCP** field and set it to **Server**. The following message will appear: "The system will now issue IP addresses to other PCs on the LAN. Continue?"

Caution

Do not use this setting if your system is on a LAN with other computers. If you do, it will provide IP addresses to the other computers even though the LAN already has a DHCP server. Your IT personnel and system administrators will have to repair any network problems this causes.

   c. Select **Yes** if you are absolutely certain you want to set your system as a DHCP server.
   d. Press **Menu**. The following message will appear: "Power must be reset to save changes. Continue?" Select **Yes**.

© Polycom, Inc. 2003

e. Your system will automatically restart. It will now act as a DHCP server and will provide IP addresses to one or more PCs.

4. Go to the **System Information** screen. You should see an IP address of 1.1.1.2, which is the IP address of your system.

5. Once you get an IP address, go to your PC and follow these instructions:

For Windows 98:

a. Right-click the **Network Neighborhood** icon, and then right-click **Properties**.

b. When the **Network** box appears, select the **Configuration** tab, then double-click **TCP/IP**.

c. Select the **IP Address** tab. Make sure the **Obtain an IP Address Automatically** button is selected. Then click **OK**.

For Windows NT 4.0:

a. Right-click the **Network Neighborhood** icon, and then right-click **Properties**.

b. When the **Network** screen appears, select the **Protocols** tab, then double-click **TCP/IP Protocol.**

c. Select the **IP Address** tab. Make sure the **Obtain an IP Address Automatically** button is selected. Then click **OK.**

For Windows 2000:

a. Right-click the **My Network Places** icon, and then right-click **Properties**.

b. In the **Network and Dial-up Connections** window, right-click **Local Area Connection**, and select **Properties**.

c. In the **Local Area Connection Properties** window, double-click **Internet Protocol** (**TCP/IP).**

d. In the **Internet Protocol (TCP/IP) Properties** window, make sure the **Obtain an IP Address Automatically** button is selected. Then click **OK**.

6. Restart your PC. For instructions about how to access your system's Web interface, proceed to the next section.

Configuring your Web Browser

In order for the ViewStation FX or VS4000 Web interface to work properly, you must configure your Web browser (Internet Explorer or Netscape) as described in this section.

Internet Explorer Configuration

Correct configuration of Internet Explorer requires that you allow cookies and force pages to be reloaded every time. The following instructions are for Internet Explorer 5.5 and higher.

To force pages to be reloaded:

1. Launch Internet Explorer
2. Select **Tools** from the menu.
3. Select **Internet Options**.
4. Select the **General** tab, and under **Temporary Internet files**, click **Settings**.
5. Under **check for newer versions of stored pages**, select **every visit to the page**.
6. Click **OK** twice.

To allow cookies:

1. Launch Internet Explorer
2. Select **Tools** from the menu.
3. Select **Internet Options**.

© Polycom, Inc. 2003

4. Select the **Privacy** tab, and under **Settings**, move the slider to the **medium high** setting (or a lower setting).
5. Click **OK**.

Netscape Configuration

Correct configuration of Netscape requires that you enable JavaScript, allow cookies, and set the cache. The following instructions are for Netscape 6.0 and higher.

To enable JavaScript:

1. Launch your Web browser.
2. Select **Edit** fromthe menu.
3. Under the **Advanced** category, click **Enable JavaScript**.

To allow cookies:

1. Launch your Web browser.
2. Select **Edit** from the menu.
3. In the **Advanced** tab, under **Cookies**, enable one of the two following options:
   - Accept all cookies.
   - Accept all cookies that get sent back to the originating server.

Note

For Netscape 6.x, the **Cookies** area is to be found in the **Privacy and Security** tab.

4. Click **OK**.

To set the cache:

1. Launch your Web browser.
2. Select **Edit** from the menu.
3. In the **Advanced** category, under **Cache**, select **Compare the page in the Cache to the page on the network every time**.

© Polycom, Inc. 2003

Accessing the Web Interface

This section assumes that your PC is already connected to your ViewStation system either directly or over the LAN and that you have configured your Web browser, as described in the previous section.

To access the Web interface:

1. Launch Microsoft Internet Explorer on your PC.
2. Enter the IP address of your system on the address line of your browser. (Your system's IP address is displayed on the **System Information** screen.)

   The system's Web interface main page appears on your Internet browser displaying the name of your sytem.

   The main icons are displayed on the left panel of the Web page: **Place a Call, Set Up System, Select a Presentation, View a Presentation, Show Closed Caption,** and **Configure NetMeeting**.

   Note

   The **Streaming** icon is only visible when streaming is already enabled. Refer to Streaming for more information.

3. Select **Internet Options** from the **Tools** menu of the browser and make sure that security is set to **Medium** on the **Security** tab. Click **OK.**

Note

Web Interface Resolution Display: The system's Web interface does not support the 800x600 resolution.

Features of the Web Interface

This section explains how to use the following Web interface features:

- ❑ Placing a Call
- ❑ Loading and Selecting a Slide Presentation
- ❑ Viewing a Slide Presentation
- ❑ Viewing a Meeting
- ❑ Closed Caption

Placing a Call

The Web interface can be used to place remote calls from a ViewStation EX system. You can place a call in one of three different ways:

From the Address Book. See Placing a Call from the Address Book.

From the Global Address Book. See Placing a Call from the Global Address Book.

Using the Manual Dialer. See Placing a Call Using the Manual Dialer.

To access the Placing a Video Call screen:

Click the **Place a Call** icon in the left panel of the main Web screen.

© Polycom, Inc. 2003

Figure 7-2 shows the main Web dialing page (Placing a Video Call).

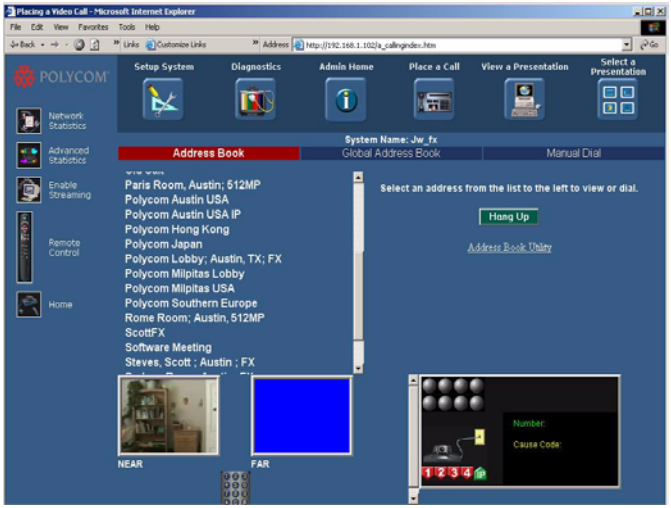

Figure 7-2. Placing a Video Call Web Screen

The **Global Address Book** call option is only available if a server IP address has been entered in the **Global Address** screen on your system and the option **Display Global Addresses** is enabled (**System Info > Admin Setup > LAN/H.323 > Global Address > Server**).

If the option **Allow Remote Monitoring** is enabled on your system (**System Info > User Setup**), you can watch the call go through at the bottom of the page where call status information and streaming video snapshots from the call are displayed.

Several icons are displayed at the top and in the left panel on the Web page. The icons in the left panel allow you to access statistical tools, the virtual remote control, and streaming. The icons at the top of the Web page give you quick access to all the **Admin Setup** and **Diagnostics** screens, as well as to the most-often used features, such as **View a Presentation, Slide Presentation,** and **Place a Call**.

Placing a Call from the Address Book

To place a call from the Address Book:

1. From the Web interface main page, select **Place a Call**. The **Placing a Video Call** page appears.
2. Select the **Address Book** tab.
3. Select the site from the list.
4. Click the **Call this Site** button.

Placing a Call from the Global Address Book

To place a call from the Global Address Book:

1. From the Web interface main page, select **Place a Call**. The **Placing a Video Call** page appears.
2. Select the **Global Address Book** tab.
3. Select the name to dial from the list on the left.
4. Click **Call this Site**.

Placing a Call Using the Manual Dialer

To place a call using the Manual Dialer:

1. From the Web interface main page, select **Place a Call**. The **Placing a Video Call** page appears.
2. Select the **Manual Dial** tab.
3. Enter the video numbers or extension. If this is not a bonded call (2 x 56 or 2 x 64 Kbps) with two different video numbers, enter the first video number in the **Video A** field, and the second one in the **Video B** field. If the video number is the same for both channels, then enter it in the **Video A** field. Otherwise, enter the number in the **Video A** field and leave the **Video B** field blank.

© Polycom, Inc. 2003

4. Select the line speed.
5. Select the call type (**ISDN, IP**, or **AUTO**).

Note

Note that if **Auto H.323 Dialing** is enabled on the system (**Admin Setup > LAN/H.323 > H.323 > Setup**), the system will be able to auto-detect the type of call you are placing (IP or ISDN) based on the video number format. Consequently, the **ISDN** and **H.323** fields on this Web page are not visible.**Auto H.323 Dialing** is enabled by default.

6. Click the **Call** button.

To terminate your call:

Click the **Hang Up** button.

Loading and Selecting a Slide Presentation

The following explains how to load a slide presentation from the PC to the ViewStation system using the Web interface and present those slides in a video call.

The following lists key information about loading a presentation:

- ❑ The system is only compatible with Microsoft PowerPoint 97 or higher.
- ❑ Because the system does not have a hard drive, the computer that is used to upload the presentation must be left on during the presentation and the pcPresent application window must be active.
- ❑ You can load up to eight presentations on a system. Each presentation must originate on a separate PC.
- ❑ The PC from which you are presenting cannot be running an FTP service.

Loading a Slide Presentation on the PC

To load a slide presentation on the ViewStation system:

1. Launch Internet Explorer 5.5 or higher.

   Note

   Make sure your browser is configured to accept cookies.

2. Enter the IP address or the LAN host name of the system on which you want to display the slides.

   Example:

   IP address: http://192.168.1.102

   LAN host name: http://Main_System

3. In the main Web page, click the **Select a Presentation** icon. The **Select a Presentation for Viewing** Web page appears.

Note

For added security, you can specify a password for a presentation started from a PC. Users must enter the specified password in order to load the presentation. If you wish to view the presentation, you must enter the meeting password.

© Polycom, Inc. 2003

4. Click the **Press Here to Select a PowerPoint Presentation** button. The **pcPresent** dialog box appears.

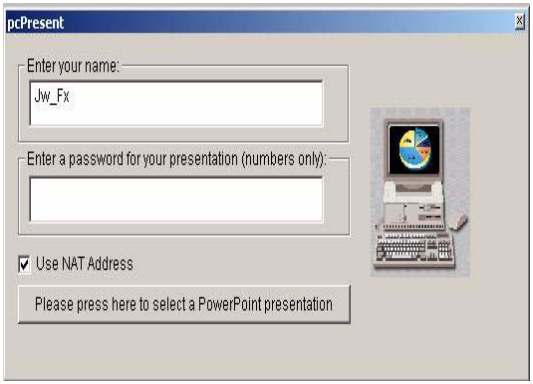
pcPresent
Enter your name:
Jw_Fx
Enter a password for your presentation (numbers only):
Use NAT Address
Please press here to select a PowerPoint presentation

Figure 7-3. pcPresent Screen

5. In the **pcPresent** screen, configure the following options:

   a. **Enter your name** (your host name is here by default).

   b. **Enter a password...:** Enter a presentation password, if you wish to establish one for the presentation. You will be prompted later for this password when you select the presentation.

   c. **Use NAT Address:** Enable or disable the **Use NAT Address** option as is appropriate as described below. **Use NAT Address** is enabled by default. The **Use NAT Address** field only appears if the system detects a NAT device.

      – If your PC or laptop is behind a NAT device but the system is not, make sure that **Use NAT Address** is enabled. In addition, you will have to open the following ports in the NAT device so that the slides can successfully load into the system:

        80 (http port)

        21 (ftp control port)

        5004 and 65000 ports

      – If your PC or laptop and the system are both behind the same NAT device, disable the option **Use NAT Address**.

Note

If the security level on your Internet browser is set too high, you will not be able to bypass the password. If this occurs, change the security level to low or medium.

6. Click the **Please press here to select a PowerPoint presentation** button. The **File Open** dialog box appears.

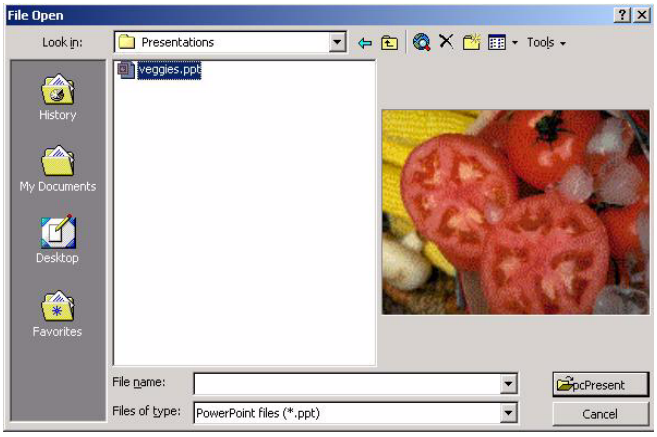

Figure 7-4. pcPresent: File Open Screen

7. On your PC, navigate to the presentation file and select it.

8. Click the **pcPresent** button. A window appears indicating that your slides are being converted to thumbnail sketches. Once this is complete, your thumbnails are loaded into the flash memory of the system.

© Polycom, Inc. 2003

Selecting a Slide Presentation on the ViewStation EX

Complete the following steps on your system to select the presentation:

1. Press the SLIDES button on the remote control. The **Available Presentations** screen appears on the monitor attached to the system:

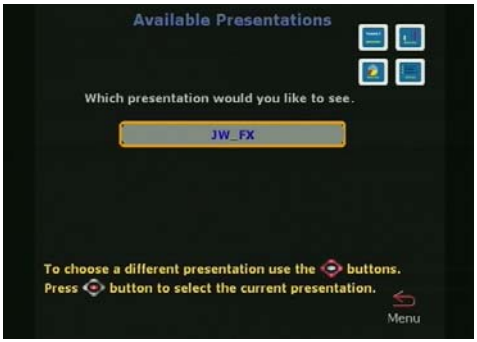
Available Presentations
Which presentation would you like to see.
JW_FX
To choose a different presentation use the buttons.
Press button to select the current presentation.
Menu

Figure 7-5. Available Presentations Screen

2. Select your presentation and press the SELECT button on the remote control to begin presenting. A presentation password may be required to proceed (this is the password set previously in the **pcPresent** screen).

Figure 7-6. Presentation Password Screen

3. The **Presentation Directory** screen appears where you can observe slides being loaded onto the system.

4. A thumbnail of each loaded slide appears on the **Presentation Directory** screen so that you can see all of the slides at once. Use the arrow buttons on the remote control to highlight a slide, and then press the SELECT button on the remote control to view it.

Figure 7-7. Presentation Directory (showing Loaded Slides) Screen

5. To get information about the slide you are viewing, press the INFO button on the remote control. The names of the presenter and the presentation appear, as well as the slide number, and the viewing password. The viewing password is set in the **Security** screen as the **Meeting Password** field (**System Info > Admin Setup > Security**). You can change the password on a presentation while you are viewing it by highlighting the **Viewing Password** field on the **Slide Presentation Information** screen and entering a new password.

6. Use the remote control to move through a presentation, as follows:

   - To move backward and forward through your presentation, use the LEFT and RIGHT ARROW buttons.
   - To go to the beginning of the presentation, press the UP ARROW button.
   - To go to the end, press the DOWN ARROW button.
   - If you want to go from viewing a slide to viewing its thumbnail, press the MENU button on the remote control. Press the SELECT button on the remote control to return to

© Polycom, Inc. 2003

live video. If you press the SLIDES button, you can select another presentation.

Slide Display Information

1. **High-Resolution Slides.** The ViewStation EX system is capable of displaying high-resolution graphics on an attached monitor. For more information, refer to Monitors on page 305.

Slide Presentation Function and Annex D Support. A graphics slide or snapshot sent from one videoconferencing system to another system may not be displayed properly if the receiving system does not support the Annex D high-resolution graphics standard.

Polycom supports this graphics standard. However, if a Polycom system sends a slide or snapshot to another vendor's system that does not support Annex D, the graphic appears on the far site monitor for a few seconds and then disappears. If this problem is encountered, verify that the other side's system supports the Annex D high-resolution standard.

Note

All Polycom videoconferencing products, including the ViaVideo desktop system, support the Annex D high-resolution graphics standard.

Viewing a Slide Presentation

You can view slides (that are being presented with a ViewStation system) on your PC using the ViewStation EX Web interface.

A maximum of 30 parties can simultaneously view the presentation for each ViewStation EX system in a call. For example, in a call with another system (2 systems), 60 parties can view your presentation on 60 separate PCs (2 systems x 30 parties).

Note

A user cannot view a slide presentation and select a slide presentation from the same PC.

To view slides that are being presented:

1. Launch Internet Explorer 5.5 or higher, or Netscape 6.0 or higher.
2. Enter the IP address of one of the ViewStation EX systems participating in the videoconference. The Web interface main page appears.
3. Click the **View a Presentation** icon. The **Enter Network Password** dialog box appears.
4. Enter your name and a password, if one is required. The password is the **Meeting Password**, which is set in the **Security** screen (**System Info > Admin Setup > Security**) of the system, or in the **User Setup** screen (**System Info > User Setup**).
5. Click **OK**. The slides appear.

© Polycom, Inc. 2003

Viewing a Meeting

.If streaming is enabled on your ViewStation EX system, the Web **View a Presentation** icon is replaced by the **View a Meeting** icon. For more information about streaming, refer to the section Streaming, on page 261.

When you select **View a Meeting**, two options are available: **View a Slide Presentation** and **View Streaming Video**.

Figure 7-8. View a Meeting Web Screen

To view a streamed slide presentation:

Click **View a Slide Presentation**.

To view streamed video:

Click **View Streaming Video.**

Closed Caption

Closed Caption is a Polycom-proprietary software feature that lets you display text on the main video screen of the local and far ViewStation EX systems.This is done using the system's Web interface.

Closed Caption is particularly well suited for people participating in video communications who can only communicate through written messages or who need to have the verbal exchange of other participants transcribed or translated on the fly for them. Closed caption is also a useful tool for the hearing impaired or foreign speakers.

Accessing and Using Closed Caption

To access Closed Caption:

1. Start Internet Explorer 5.5 or higher or Netscape 6.0 or higher.
2. Place a call to the far site.
3. To launch your system's Web interface, enter your system's IP address in the **Address** field of your Web browser.
4. On the main page of your system's Web interface, select **Show Closed Caption**.
5. The **Enter Network Password** dialog box appears. Enter your name and a password, if one is required. The password is the **Meeting Password**, which is set in the **Security** screen (**System Info > Admin Setup > Security**) of the system, or in the **User Setup** screen (**System Info > User Setup**).
6. You are now in the **Closed Captioning** screen.

To use Closed Caption:

1. Enter your text in the **Current** field. You can enter up to 250 characters per line at a time.
2. Press the **Enter** key on your PC keyboard to display your text in the **History** field. This action will also send and display your text to the near-site and the far-site system. The message is only displayed for 15 seconds.

Additional Information About Closed Caption

- Closed Caption works in a call and out of a call.

© Polycom, Inc. 2003

- Closed Caption works in IP (H.323) and ISDN (H.320) calls.
- Closed Caption is only supported when the call occurs between two Polycom ViewStation SP, MP, V.35/RS-449/RS-530, or 512 systems running version 6.5 or greater, and FX or VS4000 systems running software version 2.5 or greater.
- Closed Caption is not supported in multipoint calls.
- The Closed Caption feature requires that you enter your name (and **Meeting Password** if you have one) after a call is started or after a call is hung up. You might have to refresh your browser if you hang up the call and you use Closed Caption out of a call.

PC-Resident Applications

This section explains how to use the following advanced Web interface features:

- PolycomSnap
- NetMeeting
- Polycom Management Access Control Wizard (PMAC)

PolycomSnap

PolycomSnap is a PC-resident application that lets you capture JPEG images of the entire PC screen or specific windows or areas of the PC screen and display the snapshots on one or more Polycom ViewStation EX systems. PolycomSnap can be used in a multipoint videoconference to display snapshots of your PC to all of the participating systems simultaneously.

To download and use PolycomSnap:

1. Click **PolycomSnap** on the Web interface main page.
2. A **File Download** window appears. Choose one of the options (**Run this program from its current location** or **Save it to disk**) and click **OK.**

© Polycom, Inc. 2003

3. Follow the on-screen instructions to download the application. When you launch the PolycomSnap application, the following interface is displayed:

Figure 7-9. PolycomSnap Interface

4. Click the **Connect** tab of the PolycomSnap interface. Enter the IP address of the system in the **Address** field. This is the IP address of the system to which the snapshots are to be sent.

   A password may be required. The password is the **Meeting Password** which is set in the **Security** screen (**System Info > Admin Setup > Security**) of the system, or in the **User Setup** screen (**System Info > User Setup**).

5. Click the **Connect** button. Your system is now ready to receive snapshots.

6. Click the **Area** tab. Select the snapshot area you want to capture.

7. Click the **Snapshot** tab. Select the snapshot capture mode.

8. Then press the PolycomSnap **Snap** button, or press **F9** on your PC keyboard to send a snapshot of your PC desktop to the system connected to your system.

9. To disconnect, click the **Disconnect** button under the **Connect** tab.

NetMeeting

You can place data calls through Microsoft NetMeeting. NetMeeting data is transmitted via the network and is displayed on the PC at each site. Data conferencing is only available during ISDN (H.320) calls and must be supported by far-site systems.

Note

For more information about data conferencing, refer to Data Conference on page 301. This section also contains information about how to use a ShowStation IP.

The following lists key information about data conferencing using NetMeeting:

- To use the NetMeeting application sharing, file transfer, and whiteboarding, your PC must be connected to your system via your LAN.
- NetMeeting data is transmitted via the H.320 network. The bandwidth used is dynamically allocated so that when NetMeeting is not sending data, the bandwidth used returns to the video data.
- **System Compatibility and NetMeeting 3.0.** T.120 application sharing, file transfer, and whiteboarding are supported for NetMeeting 3.0 when used with two systems. You must have the same version of NetMeeting installed on both ends of the conference. These functions are not supported for NetMeeting 3.0 when used with a ViewStation EX system and a videoconferencing unit from another vendor. In these situations, you must install NetMeeting 2.11.
- **Security Restrictions.** For security reasons, the firewall will not allow application sharing, file transfer, and whiteboarding in an IP (H.323) call (on your system). Use NetMeeting to perform these functions between two PCs once a connection to the far site has been established.
- During the NetMeeting call, the whiteboard, chat, application sharing, and file-transfer capabilities are available. Audio and video are provided via the system.

© Polycom, Inc. 2003

- ❑ If additional participants want to join a NetMeeting conference, they can place a NetMeeting call to the IP address of either PC in the call.

Enabling NetMeeting on the ViewStation EX

The following describes how to enable your system's data conferencing capabilities.

To enable NetMeeting on your system:

1. Select **System Info > Admin Setup > Data Conference**. The **Data Conference** screen appears.
2. Enable either the **NetMeeting** or the **T.120** device option. The ShowStation IP option appears only if a ShowStation IP is connected to your system or the LAN.

Accessing NetMeeting

To access NetMeeting:

1. Place a point-to-point ISDN (H.320) call to the remote site. Make sure the remote site has also placed a call to the local site.
2. Open Internet Explorer 5.5 or higher or Netscape 6.0 or higher on your PC and enter the IP address of your system in the **Address** field of your browser. your system's Web interface main page appears on your PC.
3. Click the **Configure NetMeeting** icon.

   If an admin password is required, the **Enter Network Password** window appears. The following information is needed:

   a. Enter your name in the **User Name** field (use "admin" as the user name).

   b. Enter the admin password in the **Password** field. This password is set in the **Security** screen (**System Info > Admin Setup > Security)** of your system.

c. Click **OK.**

4. You are now in the **How to Start a NetMeeting Call** Web screen. You can either follow the on-screen instructions or proceed with the present instructions.

5. Enter the IP address of your PC.

Note

In Windows 98 and ME, you can find your PC's IP address by clicking the **Start** button on your PC desktop. Then, click **Run**, and type `winipcfg` in the **Open** box.
In Windows NT and 2000, you can get your IP address by typing `ipconfig` at the command prompt.
You can also obtain the IP address of your PC from the NetMeeting application. Click **Help** and **About NetMeeting**.

6. To open NetMeeting on your PC, double-click the **NetMeeting Application** icon. Make sure the far site has also launched NetMeeting.

7. Select **Call > New Call** from the NetMeeting menu on the PC connected to the system that initiated the videoconference. Or you can also click the phone icon on the right of the menu. The **Place a Call** window opens.

8. In the **To** field, enter the IP address of the system that is connected to your PC. For easy reference, the IP address of the system is provided on the **How to Start a NetMeeting Call** Web page.

Information About Placing an IP Video Calls with NetMeeting

You can make IP (H.323) video calls to and from a PC using NetMeeting 2.11 or 3.0.

Line Speed. The line speed of a video call from NetMeeting to a ViewStation EX system depends on the bandwidth setting in NetMeeting:

- ❑ Cable, xDSL, or ISDN = 128 Kbps
- ❑ Local Area Network = 384 Kbps

© Polycom, Inc. 2003

Calls from a ViewStation EX system to NetMeeting must be at line speeds higher than 64 Kbps.

Restrictions. You cannot use application sharing with NetMeeting while in an IP (H.323) call with a ViewStation EX system.

Compatibility. NetMeeting 3.0 is compatible with ViewStation EX systems version for H.323 video calls. For these calls, you must disable the following two security options on the **Security** tab (**NetMeeting Tools > Options)**:

- ❑ I prefer to receive secure incoming calls
- ❑ I prefer to make secure outgoing calls

Polycom Management Access Control Wizard (PMAC)

This stand-alone application allows administrators to easily add Help desk numbers, company logos, and a new high-level management password that would be needed to access any or all user interface screens that the user chooses to protect.

This application is available on your software CD and can also be downloaded from the Polycom Website (Go to http://www.polycom.com/resource_center/. Then select Software Downloads.)

All these PMAC features can be loaded to any ViewStation EX systems on a per-unit basis.

- ❑ From the PMAC utility, the administrator can:
- ❑ Install system logos
- ❑ Create custom speed dial screen
- ❑ Create management password
- ❑ Password-protect individual screens
- ❑ Connect/disconnect to and from a system

- ❑ Open and save profiles

Installing a Logo

You can add your own logo to the main menu through the PMAC utility screen. The logo will appear in the top right corner of the screen.

Note

Note: The logo must be a jpg image and smaller than 125 x 75 pixels.

To add your own logo:

1. Launch the **PMAC** utility.
2. Enter the **IP Address** and the **Password** of your system.
3. Click the **System Logo** tab.
4. Click the **Browse** button to navigate to the jpg file you wish to install.
5. Clicking the **OK** button will apply the changes, however it will close the application.
6. Click the **Apply** button to install the logo.

Creating Custom Speed Dial and Custom Video Numbers Screens

The normal **Speed Dial** screen contains the six most-recent calls. In the **Custom Speed Dial** screen, you can create additional Speed Dial buttons. The custom **Speed Dial** screen can only be created, edited, and deleted from the PMAC utility.

To access the Custom Speed Dial and Custom Video Numbers screens:

1. First, install a custom Logo on the system (see preceding section).

2. Select the appropriate custom Logo. Selecting a custom Logo takes you automatically to the custom **Speed Dial** screen.

To install Custom Video Numbers:

1. Launch the **PMAC** utility.
2. Enter the **IP address** and the **Password** of the system.
3. Click the **Custom Video Numbers** tab.
4. Enter a **Screen Title**.
5. Enter a **Site Name.**
6. Enter the **Site Number.**
7. From the drop-down menu, select a **Call Speed.**
8. From the drop-down menu, select a **Call Type** (IP or ISDN).
9. Select the **Apply** button to install the settings.

Note

To erase all settings, select the **Clear All** button.

Creating the Management Password

The Management Password is different from the Admin Password. The Admin Password allows access to the Admin Setup screens. The Management Password allows the administrator to password-protect (lock) specific screens. In other words, the Admin Password allows a user to access the admin section, but the Management Password is needed to access a specific screen.

To create a Management Password:

1. Launch the **PMAC** utility.
2. Enter the **IP address** and the **Password** of the system.
3. Select the **Management Password** tab.

4. Enter the Management Password. Re-enter the Management Password.

5. Clisk the **Apply** button to install the settings.

When you try to access a screen that is password protected, you are prompted to enter the Management Password. If the wrong password is entered, you are not allowed to access the screen.

The Management Password overrides the Admin Password. For example, if you have both an Admin Password and a Management Password, use the Management Password to log into the system from the PMAC utility.

Table 7-1. Password Usage with PMAC

Admin Password	Management Password	Password to Use When Using PMAC
Yes	No	Admin
Yes	Yes	Management
No	Yes	Management
No	No	No password

Password-Protecting Individual Screens

In order to password-protect screens, a Management Password must be created first (see preceding section). Then, from the **Screen Access** tab, you can specify which screens to lock.

To password-protect (lock) an individual screen:

1. Launch the **PMAC** utility**.**

2. Enter the **IP Address** and **Password** of your system.

3. Select the **Screen Access** tab.

4. Double- click an item in the left column (**Select Screens from**). While holding the **Ctrl** key on the keyboard, single-click as many items in that column.

5. Press the **-->** button to move items from the left to the right column. Items in the right column (**Do not Allow Access to Screens**) are password-protected screens.
6. Select the **Apply** button to install the settings.

To remove password-protected screens:

1. Double-click an item in the right column of the **Screen Access** screen. While holding the **Ctrl** key on the keyboard, single-click as many items in that column.
2. Press the **<--** button to move items from the right to the left column.
3. Select the **Apply** button to install the settings.

Connecting to and Disconnecting from your System

After you have updated your system using the PMAC utility, click **Disconnect**.

When the PMAC utility is not connected to a system, the **Connect** button appears at the top.

Open and Save Profiles

This Open/Save option can save Custom Video Numbers, the Management Password, the password-protected screens, and the system Logo settings. You can then log into another video system and upload the Profile.

To save or open a Profile:

1. Click **Profile** from the utility's menu.
2. Click **Open** to open a previously saved profile.
3. Click **Save** to save all the settings.

System Setup and Remote Management

The ViewStation EX Web interface lets you perform most of the setup, configuration, and diagnostics tasks that are available on the ViewStation EX user interface. These tools are grouped under two icons:

- **Admin Setup—**Most of the setup, configuration, and message screens can be accessed from this icon. See Admin Setup/General Setup on page 254.
- **Diagnostics**—Most of the diagnostic screens and tools can be accessed from this icon. See System Diagnostics on page 255.

To access screens grouped under the Admin Setup and Diagnostics icons:

1. Launch your Web browser and enter the IP address of the system you want to manage in the Web browser's **Address** field. The system's Web interface main page appears.

   Note

   Internet Explorer 5.5 or higher is recommended over Netscape Navigator because the ViewStation EX system uses Microsoft's ActiveX controls to enable the PowerPoint presentation capability.

2. Click the **Set Up System** icon. The **System Information** Web screen appears. This screen displays information about your system, as well as the main management and features icons.

   Note

   You will be prompted to enter an **Admin Password** if one has been set in the **Security** screen (**System Info > Admin Setup > Security**). The user name is "admin."

3. Select the appropriate icons to go to the corresponding management screens. The icons are organized as follows:

© Polycom, Inc. 2003

- **Left panel on the Web page (vertically aligned icons):**

  The **Admin Setup** and **Diagnostics** icons allow you to access most of the same setup, configuration, and diagnostic tools that are available on your system. **Home** is a shortcut back to the main Web page.

- **Top of the Web page (horizontally aligned icons)**:

  These icons give you quick access to all the **Set Up System** and **Diagnostics** screens, as well as to the most-often used features, such as **View a Presentation, Slide Presentation,** and **Place a Call**. These icons are available from any of the screens from anywhere within the Admin Setup environment.

Admin Setup/General Setup

The following information describes how to access the **General Setup** screen, from where most of the setup and configuration tools are available.

1. To access the **General Setup** screen (shown below), select **Admin Setup** from the left or top icon field of the Web screen.

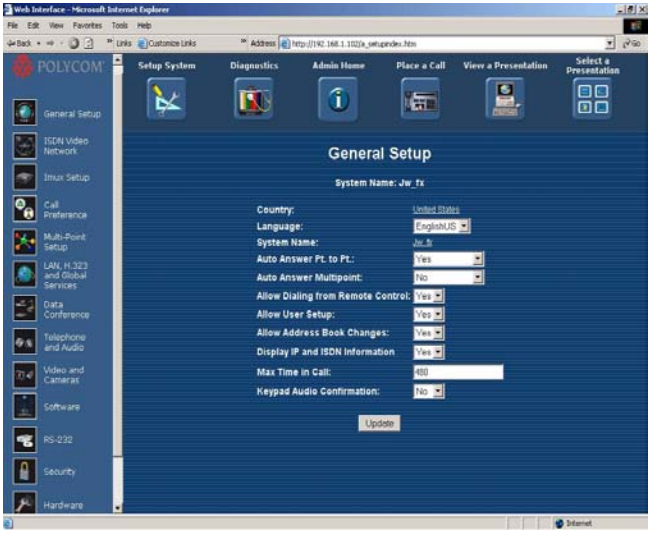

Figure 7-10. General Setup Web Screen

2. Click the icon of the feature you want to change. This screen contains the same setup and configuration tools that are available in your system's user interface.
3. Click the **Update** button to update the system with the new settings.
4. Some options require a reboot of the system. If this is the case, the system will reboot automatically.

Note

The **Allow User Setup** option found on the **General Setup** screen (of the user interface) is used to enable or disable the **User Setup** icon on the **System Info** screen of the user interface. Administrators can use this option to prevent users from changing the user setup functions.

System Diagnostics

This section provides information about the main **Diagnostics** screen (see System Diagnostics), and the following tools accessible from the **System Diagnostics** screen:

- Virtual Remote Control
- Send a Message
- Call Detail Report (CDR)

System Diagnostics

The **System Diagnostics** Web screen contains the same diagnostic tests that you can perform from the ViewStation EX system. The tests that you perform are in real time.

© Polycom, Inc. 2003

1. To access the **System Diagnostics** Web screen, select **System Setup > Diagnostics**.

Figure 7-11. System Diagnostics Web Screen

2. Select diagnostic tests of the system you are managing from the left icon field of the Web screen.

Note

For more information about the types of diagnostic tests you can perform, see Diagnostics Screen Reference on page 280 in Appendix A.

Virtual Remote Control

The virtual remote control has the same functionality as the physical remote. By clicking the on-screen buttons, you can control most of the functions of your system. See Remote Control on page 144 for a description of the buttons' functionality.

You can also take snapshots from the **Remote Control** screen using one of the three snapshot buttons.

To access and use the virtual remote control:

From the **System Diagnostics** Web screen, click the **Remote Control** icon to use the Web interface remote control.

Note

To use the virtual remote control, you must use Internet Explorer 4.0 or higher as your Web browser.

To use the snapshot feature:

Click the appropriate button to select your source (**Snapshot from Camera 1, Snapshot from Camera 2,** or **Snapshot from VCR**).

The **Start Streaming Snapshots** feature lets you stream snapshots of the room where the system is located at regular intervals. Each snapshot is displayed for a few seconds. You can set the display time in the **Snap Interval** field.

Send a Message

This utility lets you send a message to the system that you are managing. Only the near site can see your message.

To send a message using the web interface:

1. From the **System Diagnostics** Web screen, click the **Send Message** icon to send a message to a ViewStation EX system. The text message can be up to 100 characters in length.
2. When the **Send a Message** Web page appears, type in your message and click the **Send Message** button. Your message appears on screen for 15 seconds on the system that you are managing.

© Polycom, Inc. 2003

Call Detail Report (CDR)

Call Detail Report enables billing and tracking of calls via the Global Management System. It provides the ability to retrieve or delete saved records from the system, and also the ability to properly track IP and multipoint calls.

Call Detail Report can be accessed through your system's Web interface by selecting **Set Up System > Diagnostics > Call Log**.

POLYCOM
Setup System
Diagnostics
Admin Home
Place a Call
View a Presentation
Select a Presentation
Network Statistics
Advanced Statistics
Call Status
Ping
Color Bar
Test System Audio
Near End Loop
Call Detail Report
System Name: Jw_fx
Refresh
View Archive Report
Row ID | Start Time | End Time | Call Duration | Account Code | System Name | Call Number 1 | Call Number 2
1 | 0 days 00:07:52 | 0 days 00:09:28 | 0 days 00:01:36 | | Jw_fx | 192.168.1.103 |
2 | 0 days 00:00:58 | 0 days 00:01:10 | 0 days 00:00:12 | | Jw_fx | 192.168.1.22 |
3 | 0 days 01:33:41 | 0 days 01:34:11 | 0 days 00:00:30 | | Jw_fx | 192.168.1.233 |
4 | 0 days 01:36:44 | 0 days 01:36:58 | 0 days 00:00:14 | | Jw_fx | 192.168.1.233 |
5 | 0 days 01:40:19 | 0 days 01:40:34 | 0 days 00:00:15 | | Jw_fx | 192.168.1.233 |
6 | 0 days 00:04:16 | 0 days 00:04:27 | 0 days 00:00:11 | | Jw_fx | 192.168.1.233 |
7 | 0 days 00:05:11 | 0 days 00:05:23 | 0 days 00:00:12 | | Jw_fx | 216.54.150.233 |
8 | 0 days 00:01:18 | 0 days 00:01:34 | 0 days 00:00:16 | | Jw_fx | 216.54.150.233

Figure 7-12. Web Interface Call Detail Report screen (partial view)

The columns are displayed in the following order:

1. **Row ID**—This is a number that indicates the actual order in which call events occurred. The first record in the CDR has a Row ID of 1. Subsequent Row IDs are incremented by 1. This provides a sequentially numbered list of events as they occurred in the CDR. Row ID is also helpful as a line reference number if you need to comment on a specific call while viewing the csv file. Row IDs continue to be incremented in this manner until the maximum CDR file size of 100 K has been reached. At this point, the CDR is archived, and a new CDR file is created. Row ID is then reset to 1 and the process begins again.

2. **Start Time**—This is the call start time. The time is displayed in the 24-hour format of HH:mm:ss (for example: 18:09:45).

3. **End Time**—This is the call end time. The time is displayed in the 24-hour format of HH:mm:ss (for example: 18:09:45).

4. **Call Duration**—This is the time difference between Start Time and End Time.

5. **Account Code**— If the option Require Account Number to Dial is enabled on the system, then thevalue entered by a user is displayed in this field. If the option Require Account Number to Dial is enabled and the option Validate Account Number is also enabled, then the value entered by a user is displayed in this field and is sent to the GMS server for validation.

6. **System Name**—This is the name given to the system by the user or administrator.

7. **Call Number 1**—For outgoing calls, this is what was actually dialed from the first call field; note that this is not necessarily the transport address. For incoming calls, this is the caller ID information from the first number received from a remote site.

8. **Call Number 2 (if applicable for call)**—For outgoing calls, this is what was actually dialed from the second call field; this is not necessarily the transport address. For incoming calls, this is the caller ID information for the second number received from a remote site.

9. **Transport Type**—This is the type of transport used for the call (H.320 or H.323).

10. **Call Rate**—This is the rate the call settled on after rate negotiation with the remote site.

11. **System Manufacturer**—This is the remote system brand (for example: Polycom, Tandberg, Sony, etc.).

12. **Call Direction (In or Out)**—Indicates in or out.

13. **Conference ID**—This is a unique number given to each conference. The first conference listed in the CDR are given a value of ë1.í Subsequent Conference IDs are incremented by 1. The Conference IDs continue to be incremented in this manner until the maximum CDR file size of 100 K has been reached. At this point, the CDR is archived, and a new CDR file is created. The Conference ID is then reset to 1 and the process begins again.

14. **Call ID**—Identifies individual calls within the same conference.

15. **Endpoint Type**—For example, Terminal, Gateway, or MCU.

© Polycom, Inc. 2003

16. **Audio Protocol (Tx)**—This is the audio protocol settled on after call negotiation with the remote site (for example: G.728, G.722, etc.).

17. **Audio Protocol (Rx)**—This is the audio protocol settled on after call negotiation that the far end is sending.

18. **Video Protocol (Tx)**—This is the video protocol settled on after call negotiation with the remote site (for example: H.261, H.263, etc.).

19. **Video Protocol (Rx)**—This is the video protocol that the far end is sending.

20. **Video Format (Tx)**—This is the video format settled on after call negotiation with the remote site (for example: CIF, QCIF, etc.).

21. **Video Format (Rx)**—This is the video format settled on after call negotiation that the remote site is sending (for example: CIF, QCIF, etc.).

22. **Disconnect Reason**—This is the Q.850 cause code description associated with the Q.850 numerical cause code.

23. **Cause Code**—This is the Q.850 numerical cause code that occurs in an H.320/H.323 call after a connection failure or call termination. Note: Reference Q.850 documentation for cause code number and description.

Streaming

The Web interface gives you the ability to start streaming remotely.

To start a stream:

1. Select **Set Up System > Admin Setup > LAN, H.323 and Global Services > Streaming**.

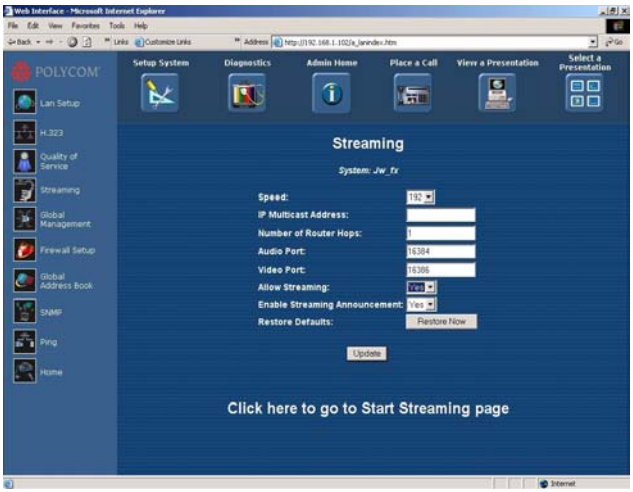

Figure 7-13. Streaming Web Screen

2. You are now in the **Streaming** page. From the current **Streaming** page, there are three different ways to access the **Start Stream** page:

   - Click the text **Click here to go to Start Streaming page** at the bottom of the page**.**
   - Click the **Place a Call** icon. Click the **Start/Stop** icon.
   - Click the **Home** icon on the left field of the Web page. Click the **Streaming** icon now visible on the Web interface main page.

3. Click **Start Stream**.

© Polycom, Inc. 2003

8

Troubleshooting

This chapter provides detailed troubleshooting information.

For basic troubleshooting information refer to Troubleshooting in chapter 1.

You may also want to refer to theDiagnostics Screen Reference section in Appendix A to find out how to perform various diagnostic tests that can help you troubleshoot any issues.

Topics in This Chapter

The following troubleshooting categories are included in this chapter.

Category	Page
General	264
Audio	265
Video	267
Network and Communications	269
IMUX	271
LAN/Intranet	272
Presentations	273
Remote Control	275

© Polycom, Inc. 2003

General

Symptom	Cause	Solution
Slow blinking green light appears on the front of the system.	The system is sleeping.	System is in power save sleep mode. This is normal. The system wakes up on any action from the remote control or on an incoming call.
Amber light appears on the front of the system.	The system is in a call.	This is normal.
Green light appears on the front on the system.	The system is not in a call.	This is normal.
Cannot enter the **Admin Setup** menus.	System is password protected. Password has been forgotten.	Go to the **Diagnostics** screen and perform a system reset. This erases all your system settings except for your Address Book. You may then enter a new password in the **Security** screen.
System starts in the Software Update screen.	System software is corrupt or not loaded properly.	Load system software on the system from your PC.

Audio

Symptom	Cause	Solution
Not enough volume during a call.	The volume is set too low on the system.	Turn up the system volume using the remote control.
	The volume is set too low on the monitor.	Turn up the volume on your monitor or external amplifier.
	The microphone pod is too far from the people speaking.	Move the microphone pod closer to the meeting participants.
The system startup music plays through the built-in system speaker but not through monitor speakers.	The monitor speakers or audio amplifier are not properly connected.	Check audio connections and volume level on your monitor.
Incoming call ring and other sound effects too loud or too soft.	The sound effects volume is not set at desired level.	Adjust the sound effects volume on the Phone/Audio screen. If you do not want to hear sound effects, set the volume to 0.
No audio in a call.	The monitor audio inputs are not connected properly.	Check audio output on the Generate Tone screen under Diagnostics. You should hear a 400 Hz tone emitting from the speaker.
	The system is connected to the wrong audio input on the monitor.	Make sure the system audio output lead(s) are connected to the same input connector(s) that have been selected on the monitor.
	The far site is muted.	Look for the far site **Mute** icon. Ask the far site to unmute its microphone pod.
	Too many network line errors.	Disconnect call and reconnect later.

© Polycom, Inc. 2003

	The microphone pod is not positioned correctly.	Make sure that the microphone pod is positioned correctly for the meeting configuration. If the microphone pod is behind the meeting participants, you may not be able to hear them speak. For the best audio, always position the microphone pod between the monitor and the person closest to the monitor. As most people face the monitor during a call, following this rule ensures that the meeting participants are also facing the microphone pod. You can also daisy-chain microphone pods along the conference table. Follow the same rule for multiple microphone pods and do not position the pods behind the meeting participants.
Audio clipping at far site when using an external wireless microphone.	The audio input is overdriven on the system.	Turn down output of wireless microphone. Put the system in local loop and adjust microphone output until you hear audio coming back clear and crisp with no clipping.
Local audio can be heard when speaking in the microphone.	The monitor or audio amplifier is connected to the VCR audio output.	Connect the monitor or audio amplifier to the monitor audio out of the system.
An echo is heard at the near site when speaking.	The far site microphone pod is too close to the audio speaker.	At the far site, make sure the microphone pod is placed away from the audio speaker.
	The far site audio volume may be too loud.	Turn down the audio volume at the far site.
Near site or far site cannot hear or see the VCR audio.	The VCR input is not selected.	Turn on the VCR input by selecting the NEAR key twice and selecting the **VCR** icon.

Video

Symptom	Cause	Solution
Picture is blank on the main monitor.	The system goes to “sleep” mode after 3 minutes of inactivity.	Pick up the remote control to wake up the system.
Same picture is seen on the first and second monitor.	Only one monitor is enabled.	Enable the system for two monitors on the **Monitor Setup** screen.
	The monitors are connected to the same output. The monitor has a composite as well as an S-Video output.	Connect Monitor 2 to the Monitor 2 connection on the rear panel of the system.
Picture freezes frequently during a call.	The network line transmission errors or IP LAN traffic is too high. Check the error count under the **Diagnostics** screen or try a lower speed IP call.	Check your system using the **Near End Loop** test under the **Diagnostics** screen. If the picture does not freeze, tell the far site to perform the same test. If the picture freezes, there are line errors on your ISDN lines. You can also test this by placing a video call to an ISDN loopback number provided by your service provider.
Picture is slow or jerky.	Only one 64 Kbps channel is connecting in your call.	Check the ISDN number of the far site. Ask the far site to call your site.
	Lots of motion in the picture you are receiving.	A background with less motion provides a better, smoother video picture.

© Polycom, Inc. 2003

Camera voice tracking does not work properly.	The camera tracking was turned off by near or far site.	Camera tracking is turned off when the near or far site moves your camera. Press the AUTO button on the remote control to restore tracking. Environmental factors, such as hard surfaces, large windows, hard floors, and the way the unit is mounted on a wall or alcove can fool voice tracking.
	The far site is speaking.	The camera stops tracking when the far site speaks to prevent the camera from pointing to your monitor speaker.
	The far site is very noisy.	The camera stops tracking when the far site has a loud noise. Try setting the system to track to camera presets.
	The near site is on mute.	The near site camera does not track when the near site is on mute. Toggle mute function with the MUTE button on the remote control.
	Near-site is noisy or too many people talking at once.	Reduce the noise in the room.
Blue screen in the PIP window.	No video input.	Check that there is a video source present on the selected input.
	The camera selection is incorrect	Check camera selection on the Camera screen.
	The VCR input is selected and the VCR is idle or not running. Most VCRs generate a blue screen when the tape is not playing.	Select a different input on the system or play a tape on the VCR.
In a multipoint call, the system MCU displays a picture of a telephone instead of video for a particular endpoint.	To indicate that a particular endpoint which cannot downspeed at the correct data rate is admitted to the multipoint call as an audio call only, the system MCU displays a picture of a telephone in the screen area corresponding to that endpoint call.	This is normal.

Network and Communications

Symptom	Cause	Solution
Error message occurs when dialing a video call.	If this is an H.320 call, the first line did not connect. It cannot make a call if the first line does not connect.	Check that all network cables are properly connected. Restart the system. Try to call alternate sites.
	If this is an H.323 call, the IP Gateway/Gatekeeper is not operating or is not configured correctly.	Contact your network administrator.
ISDN: Line Status icons do not go away so video calls cannot be made.	The ISDN line is not present.	Check the ISDN line connections. The system has an S/T interface and requires an NT-1 to be connected between the the system and your ISDN line, unless the system is connected to a PBX. See below.
	The ISDN number is entered incorrectly.	Check the ISDN numbers with your service provider.
	The SPID numbers are entered incorrectly. Note: The AT&T point-to-point protocol does not require SPIDs.	Select the Clear icon on the Auto Detect SPIDs page, and then select the Start icon to automatically detect the new SPIDs. Make sure your ISDN numbers are entered correctly.
	The system is directly connected to a U interface.	Install an NT-1 between your ISDN line and the ViewStation ISDN connection.
ISDN: The **Line Status** icons do not go away so video calls cannot be made.	The ViewStation is connected to an NT-1 then directly to a PBX. The PBX connection is an S/T interface.	You do not need an NT-1 when connecting to a PBX. Connect the system directly to the PBX S/T connection. You may need to use an ISDN terminating resistor on the ISDN line between your ViewStation and the PBX.

© Polycom, Inc. 2003

	Your ISDN line is provisioned incorrectly by your service provider. The system will auto-detect SPIDs for about 85% of all United States and Canadian switches. The ViewStation was not able to detect your SPIDs. Check that your ISDN line is provisioned for Voice/Data, Voice Data.	Check that your ISDN line is provisioned for Voice/Data, Voice/Data. Check with your ISDN service provider and enter the SPIDs and switch protocol manually. Note: The AT&T point-to-point protocol does not require SPIDs. You may want to contact your ISDN provider and ask him to switch your line to the NI 1 protocol standard.
ISDN: Error message when dialing a video call.	An ISDN error code is received from the ISDN line.	Refer to the *Integrators' Reference Manual for ViewStation EX, ViewStation FX, and VS4000*.
ISDN: When placing a call, progress icons do not turn green.	The call progress icons indicate that the video call did not complete.	The call progress icons indicate the call state when placing or receiving a video call on each ISDN channel: Blue: call initiated Yellow: call arrived at the far end ISDN switch Orange: remote system answered call Green: video sync OK
System is waiting for an IP address. The **System Info** screen shows "waiting" in IP address field.	The LAN is not working.	Check the connections to the hub. Contact your network administrator.

IMUX

Symptom	Cause	Solution
Cannot dial remote system in BONDING 384 K calls	The call progress circles only show blue or yellow. Switch protocol issue.	Start by calling the far-site at 1x64 or 2x64K. This will verify if the primary number is correct. If these calls complete, try 256K then 384K. Being able to dial non-bonded but unable to dial bonded to all locations is usually a switch protocol issue. Verify your ISDN provisioning with the Telco.
Dialing a remote site in calls above 128 K does not work.	The Call Progress circles do not turn green, or remain blue after the first channel connects.	Go to the call status screen. Highlight each of the circles for each of the channels dialed. The number dialed for each channel will be displayed as you highlight the corresponding circle. Make sure that the far site has entered the number for each of its ISDN lines correctly. The numbers for Line 1 - Line 4 should correspond with connections 1 - 4 on the IMUX.
System will not start.	The system restarts over and over again.	Defective cable between the IMUX and the system. Check that the green lights on each ISDN card are on and that the green light on the top of the IMUX is on (red on older units). The cable from the IMUX to the system is a straight RJ-45 x RJ-45 cable. Bad power supply.
Cannot select 112 or 128 speeds for BONDING calls from the speed selection icon on the **Video Phone**.	Speeds do not show when selecting the speed icon.	Add line speeds by going to IMUX **Dialing Speeds** screen.

© Polycom, Inc. 2003

LAN/Intranet

Symptom	Cause	Solution
Cannot access the system from the PC browser.	**DHCP Client** is ON and no DHCP server is available.	Contact your network administrator.
	The LAN cable is connected to the PC port.	Connect the LAN cable to the LAN port on the rear of the system.
	Bad LAN cable.	Check the light on the back of the system. You should have a steady green light to indicate a connection to the LAN and a flashing orange light to indicate LAN traffic.
	There is a firewall between your PC and your system.	Consult your network administrator.
	Your PC is on a different subnet and there is a router between you and your system.	Change your PC or system subnet mask and IP address so that they are both on the same LAN or subnet.
System does not allow management via the Web.	Wrong password.	Enter the correct password. Note: The default password is “admin.”
	Too many managers are logged into the system.	Only two system managers are allowed at any one time. To log everyone out, restart your system.

Presentations

Symptom	Cause	Solution
Web browser does not allow showing PowerPoint presentations from the PC to the system.	Wrong version of Web browser.	Presenting PowerPoint slides works with Internet Explorer 5.5 on Windows 98, ME, and 2000. You may need to load service packs to your browser. This function does not work with Netscape. Internet Explorer must have Active-X enabled. It is a requirement of PC Present.
PowerPoint presentation does not export.	Wrong version of Microsoft Office.	Use Microsoft Office 97 or 2000.
	Insufficient disk space.	Slides are converted to JPEG files and are stored in the Windows/Temp directory on your PC. Create more room on your PC.
	There are too many presentations on the system. Only eight presentations are allowed.	Delete some presentations from the system and restart the system.
	Presentation is too large.	Separate large presentations into two smaller presentations.
Cannot connect to the PC from the system for presentation. The PC name is there but the PC presentation cannot be accessed when the slide button is pressed.	Incorrect password.	Enter the correct password that was entered on the PC.
	Firewall between the system and the PC.	Consult your IT manager.
	Too many presenters. The system allows a maximum of eight presenters or PCs to be logged on at one time.	Have extra presenters disconnect.
Snapshots and presentations cannot be viewed, though the PC has access to the main Web page of the system.	Too many viewers logged in. The system supports up to 30 viewers via the Web browser in a call.	Have extra viewers disconnect.
		Change the slide-viewing password on the **Security** screen to allow only authorized viewers.

© Polycom, Inc. 2003

Cannot view presentation or snapshots from the Web.	The security level set to “High” on the Web browser.	Lower the security level on the browser to “Medium” or “None.”
	Wrong version of Web browser.	For viewing snapshots or slides from the Web, the system supports Internet Explorer 5.5 or higher. The system supports Netscape 6.0 or higher.
	Incorrect viewing password.	To check the slide and snapshot viewing password and other information about your presentation, press the INFO button on the remote control during a presentation. The viewing password may be changed on the **Security** setup screen.

Remote Control

Symptom	Cause	Solution
System does not respond to the hand-held remote control.	No batteries in the remote control.	The green light at the front of the system should blink with each button pressed on the remote. control.
	Batteries installed incorrectly.	Insert batteries with correct +/- position.
	The room lights operate in the 38 khz range and interfere with the remote control lights.	Try turning off the lights in the room and try the remote control again.
Low battery icon on the screen.	Low battery in the remote control.	Replace the batteries in the remote control with 3 AAA batteries.

© Polycom, Inc. 2003

A

Screen Reference

This appendix contains ViewStation EX screen reference information.

Topics in This Chapter

The following topics are included in this chapter.

Topic	Description	Page
System Information Reference	This section describes the **System Information** screen, which provides vital information about your system.	278
Diagnostics Screen Reference	This section describes the various diagnostic screens and how to use them.	280
User Setup Screen Reference	This section discusses the **User Setup** options.	287
Admin Setup Screen Reference	This section describes and lists the **Admin Setup** screens.	291

© Polycom, Inc. 2003

System Information Reference

The **System Information** screen provides easy access to important information about your ViewStation system.

You can also access the various **Diagnostics**, **Admin Setup**, and **User Setup** screens from the **System Information** screen by selecting their respective icons.

The **System Information** screen displays information that cannot be modified on this screen. The following system information is provided:

- **System Name—**The system name is the name assigned to the ViewStation EX system by your network administrator.
- **Video Numbers—**Video numbers are the ISDN numbers assigned to the system.
- **Gateway Number—**This field displays the Gateway number (followed by the Extension) that has already been configured in the **Gateway Number** screen**.** This field is not visible if there is no configured Gateway**.** For more information about the Gateway, see Configuring the Gateway and Gatekeeper on page 96.
- **LAN Host Name—**This is the name assigned to the system for TCP/IP configuration. To set the LAN host name, go to **System Info > Admin Setup > LAN/H.323** > **LAN/Intranet**.

  Note

  A LAN host name must be entered. It cannot be deleted or left blank. When the LAN host name is changed, the system prompts the user for a reboot.

- **LAN IP Address**—The IP address is assigned automatically through a DHCP server or is set manually (static). To manually set the IP address, go to **System Info > Admin Setup > LAN/H.323 > LAN/Intranet**.
- **Software Version**—The software version and the date of the software release are displayed in this field. Additional

information about the system software version is located in **System Info > Admin Setup > Software/Hardware > Software**.

- **Serial Number**—The serial number is unique to each system. This number is also located on a bar code sticker on the bottom of the unit. This number cannot be modified.
- **Model**—The system model type is displayed.

The **Diagnostics, User Setup,** and **Admin Setup** icons are displayed at the bottom of the screen. These icons link to screens where you can perform various setup and diagnostic tasks.

© Polycom, Inc. 2003

Diagnostics Screen Reference

You can view network statistics and perform various diagnostic tests on your ViewStation EX system from the following diagnostics screens:

- ❑ Network Statistics
- ❑ Advanced Network Statistics
- ❑ Call Status
- ❑ Color Bars
- ❑ Audio
- ❑ Near End Loop
- ❑ Reset System

These screens are described in the following sections.

Note

You can also view statistics and run these diagnostic tests from the system's Web interface. For information on how to do this, refer to System Diagnostics in chapter 7.

Network Statistics

The **Network Statistics** screen displays the network protocols and data speeds at which your call will travel over the network to the far site.

To access the Network Statistics screen:

Select **System Info > Diagnostics > Network Stats.**

This screen displays information about:

- **Tx** (transmitting) and **Rx** (receiving) **Clock Rates** and **Errors**.
- **Sync**—The - or + sign shows that the system is synchronized with another T.120 device, such as a Polycom ShowStation.
- **Video Protocol**—ITU video algorithm and annexes being used.
- **Video Format**—CIF, Wide screen, etc.
- **Audio Protocol**—G.711, G.722, or G.728.
- **Comm Protocol**—ISDN (H.320) or IP (H.323).

Advanced Network Statistics

The Advanced Network Statistics screen displays detailed information about the status of your call. Transmit and receive speeds are displayed for both audio and video during a call.

To access the Advanced Network Statistics screen:

Select **System Info > Diagnostics > Advanced Stats**.

This screen displays information about:

- **Audio Rate**—Amount of bandwidth dedicated to audio (regulated by the audio algorithm in use).
- **Video Rate**—Total bandwidth of call minus audio bandwidth.
- **Video Rate Used**—Actual bandwidth being used for video at that moment. It will fluctuate and even peak above the **Video Rate** number.
- **Video Frame Rate**—Usually near 15, 30, or 60 fps. It will fluctuate based upon lighting and movement of camera or people.
- **Video FEC Errors**—Number of received video FEC frames containing at least one error since the beginning of the call. FEC (Forward Error Correction) is used to detect and correct errors.

© Polycom, Inc. 2003

- **LSD Protocol and Rate**—Rate allocated for the transmit and receive LSD channels (Low Speed Data), and the protocols that are used on the channels.The LSD data channels can support the H.224 protocol, which is used for far-end camera control (FECC).
- **MLP Protocol and Rate**—Rate allocated for the transmit and receive MLP channels, and the protocols that are used on the channels. The MLP (Multi-Layer Protocol) data channels can support both H.224 and T.120, which is used for NetMeeting.
- **Data Conference**—The + or - sign indicates whether or not the system is configured for data conferencing.
- **Remote System ID**—Type of unit and software version of the far site.

About Polycom Video Error Concealment™ (PVEC)

If packet loss is indicated in the **% Packet Loss** field, then the **Video Protocol** field displays PVEC in the **Tx** and/or the **Rx** data columns as the active video protocol.

PVEC is a Polycom proprietary video coding algorithm based on the H.263 video coding standard. Its purpose is to transparently remedy video degradation caused by packet loss in an H.323 call. PVEC uses a sophisticated video compensation algorithm to estimate the content of lost video data and seamlessly repair the video. PVEC has proven to be very effective at preserving video quality in the presence of high levels of packet loss. Video quality degradation with the PVEC feature active may indicate that your IP network is not functioning properly.

Without PVEC, packet loss, even minimal, usually causes blurred or frozen frame video. When the system detects packet loss, PVEC is activated automatically. Similarly, it is automatically turned off when packet loss becomes negligible.

This feature works in regular video calls, snapshot and 4CIF mode. At this time, it is not operational in dual stream mode and standards based 60 fields video.

Call Status

The **Call Status** screen displays call status indicators for each channel used in a call. On this screen, you can determine if any channels are failing in a call. If you highlight one of the call progress indicators, the corresponding call number for that channel appears. You can compare this number with the number you dialed, or you can check for a malfunctioning channel.

To access the Call Status screen:

Select **System Info > Diagnostics > Call Status**.

A single channel will appear for IP calls regardless of the speed of the call.

Color Bars

The **Color Bars** diagnostic screen allows you to set the monitor controls for the optimum picture quality. If the color bars that are generated do not look clear, or the colors do not look correct, the monitor needs to be adjusted.

To access the Color Bars screen:

Select **System Info > Diagnostics > Color Bar**.

To test the color setting on your television monitor:

1. Highlight the **View Color Bars** icon.
2. Press the SELECT button on the remote control. Color bars appear full screen.
3. Use the controls on the television monitor to adjust the color settings.
4. Press any button on the remote control to return to the **Color Bars** screen.

© Polycom, Inc. 2003

Audio

The **Generate Tone** and **Audio Meter** diagnostic screens allow you to test your audio connections. They are accessed from the **Audio** screen.

To access the Audio screen:

Select **System Info > Diagnostics > Audio.** From the **Audio** screen, you can access the **Generate Tone** and the **Audio Meter** screens.

Generate Tone

The **Generate Tone** diagnostic screen is used to test if the audio connections to the monitor are correct. A 400 MHz audible tone should be heard from the monitor speakers indicating the local audio connections are correct.

There is an animated speaker icon that indicates a tone is being emitted, whether or not a tone is heard. If no tone is heard, the audio connections to the monitor are incorrect.

To generate a tone:

1. Highlight the **Generate Tone** icon and press the SELECT button on the remote control.
2. The **Generate Tone** screen appears with instructions on how to perform this test.
3. Highlight the **Generate Tone** icon again press the SELECT button on the remote control.
4. When you hear the tone, adjust the volume controls on your system and television monitor to comfortable levels.
5. Press any button to stop the tone.

Note

If the system is in a call the far site also hears the tone.

Audio Meter

The **Audio Meter** screen is used to test external audio input in custom installations. If, at normal speaking levels, the audio meter does not register between 0 and 15, try positioning yourself closer to the microphones or adjusting the settings on your line device or mixing board.

To test audio levels:

1. Highlight the **Audio Meter** icon and press the SELECT button on the remote control. The **Audio Meter** screen indicates the audio level of all audio inputs connected to the system.
2. Speak into the microphone to test the audio level.

Near End Loop

The **Near End Loop** screen allows you to see how a far site would see and hear you. This can help you diagnose a problem with an H.320 video call.

To access the Near End Loop screen:

Select **System Info > Diagnostics > Near End Loop**.

The **Near End Loop** screen allows you to test the encoder/decoder on your ViewStation FX or VS4000 system. If you perform a near-end loop test during a call, the far site sees a loop of itself. Press any button on the remote control to stop the loop.

Note

This diagnostic tool is only available out of a call or in a H.320 call.

© Polycom, Inc. 2003

Far End Loop

The **Far End Loop** screen allows you to find out whether or not your audio and video is going out across the network and coming back properly. This diagnostic tool is only available in an H.320 call.

To access the Far End Loop screen:

Select **System Info > Diagnostics > Far End Loop.**

Reset System

The **Reset System** screen clears existing system configurations. You can erase your system settings, your admin password, and/or your Address Book entries. Once you have reset the system, your system walks you through the system configuration screens as it did when you powered it on for the first time.

To access the Reset System screen:

Select **System Info > Diagnostics > Reset System**.

To reset the system:

1. Enter the system's serial number.
2. Make sure the **Delete System Settings** option is selected.
3. Select the **Reset** button.

Note

Be sure to copy system information before resetting a system. All settings are lost when you reset the system. Passwords are set on your system's user interface. If you forget the admin password, this screen will allow you to reconfigure the system with a new password.

User Setup Screen Reference

The **User Setup** screen is used to set user preferences that can be made every time the system is used. None of these items require a system reboot to take effect.

Note

This screen is not password protected, however, access to this screen may be eliminated by disabling the **Allow User Setup** option in the **General Setup** screen.

To access the User Setup screen:

Select **System Info > User Setup**:

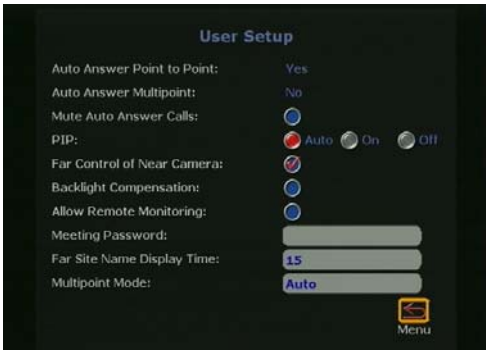

Figure A-1. User Setup Screen

You can use the **User Setup** screen to set the following options:

- **Auto Answer Point to Point**—This option lets you set the Auto Answer mode for a point-to-point call.

  To set the mode, select the appropriate option from the drop-down menu in the **Auto Answer Point to Point** field. These options are **No**, **Yes**, and **Do Not Disturb;** they are described below:

- **Yes**—If **Auto Answer Point to Point** is set to **Yes**, any incoming call will be connected automatically. In a point-to-point call, the default is **Yes**.
- **No**—If **Auto Answer Point to Poin**t is set to **No**, the user will be prompted with a message "You have a video call. Would you like answer?" if there is an incoming call. This is generally followed by a video number and a far-site name if they are available. If the user selects **Yes**, the call will be connected. If the user selects **No**, the call will be rejected.
- **Do Not Disturb**—If **Auto Answer Point to Point** is set to **Do Not Disturb,** the user is not notified when there is an incoming call. The site which placed the call will receive either a “call rejected” or “dialed site busy” message.

❑ **Auto Answer Multipoint**—This setting is used to determine how the system will handle an incoming call in a multipoint video conference. This setting only matters if the system is in a call.

Select the appropriate option from the drop-down menu in the **Auto Answer Multipoint** field. These options are **No**, **Yes**, and **Do Not Disturb** and are described below**:**

- **No**—If **Auto Answer Multipoint** is set to **No** and there is an incoming call, the user will be prompted with a message "You have a video call. Would you like answer?" if there is an incoming call. This is generally followed by a video number and a far-site name if they are available. If the user selects **Yes**, the call will be added into the ongoing conference. If the user selects **No**, the call will be rejected. The factory default is set to **No**.
- **Yes**—If **Auto Answer Multipoint** is set to **Yes**, any incoming call will be connected automatically. The screen will split into a multipoint call progress screen as the incoming call is answered.
- **Do Not Disturb**—If **Auto Answer Multipoint** is set to **Do Not Disturb**, the user is not notified of the incoming call. The site which placed the call receives a Far Site Busy code (H.320) or Call Rejected (H.323)

Note

This multipoint option is not available unless you update your ViewStation EX system to support multipoint capabilities. For more information, refer to Updating System Software From a PC on a LAN.

- **Mute Auto Answer Calls**—When this option is selected, the microphone pod is turned off to prevent the far site from hearing the near site when the system is in Auto Answer mode. Both sites are notified that the system is muted with a microphone image located in the lower left side of the main screen. A red light illuminates on the microphone pod when the near site is muted.

  Note

  If the system is already in a call, the **Mute Auto Answer Calls** option does not automatically mute the near site.

- **PIP**—The PIP (Picture in Picture) feature allows the near site to adjust near-camera views while in a videoconference. When PIP is enabled, the **Camera** icon in the top right corner of the screen disappears when the remote control is placed on a flat surface.The following options are available in PIP mode:

  - **Auto—**The system shows a PIP window when the call is first connected and when the remote control is not resting on a flat surface.
  - **On—**The system shows a PIP window which remains in the lower right corner until the video call is completed.
  - **Off—**The system does not show a PIP window.

- **Far Control of Near Camera**—This option allows users on the far site to control the camera at the near end. When this option is enabled, a far-site user may control the framing and angle of the camera of the near site by pressing the FAR button on the remote control.

© Polycom, Inc. 2003

- **Backlight Compensation**—Backlight compensation is used in conference rooms where the subject appears darker than the background. When enabled, the camera automatically adjusts for a light background.

- **Allow Remote Monitoring**—Remote monitoring allows a user to remotely view a conference room prior to a scheduled meeting using the system's Web interface.

- **Meeting Password**—The meeting password is used:

  - As the system's password when it it is used as an MCU.
  - For dialing into an MCU with a password already set.
  - As the password for viewing slides on the Web interface.
  - As the password for viewing streams on the Web interface.
  - For accessing Closed Caption.

- **Far Site Name Display Time**—This option displays the name of the far site for a defined number of seconds.

  - **15 seconds**—The far site name is displayed by default for 15 seconds.
  - **Blank**—The far site name is displayed until the call is ended.

- **Multipoint Mode**—To change **Multipoint Mode**, highlight the **Multipoint Mode** field and press the SELECT button on your remote control. The **Multipoint Setup** screen appears. In the **Multipoint Setup** screen, you can set the **Multipoint Mode** to **Auto, Discussion, Presentation,** or **Full Screen**. By default, it is set to **Auto**. For more information about multipoint modes, refer to Multipoint Viewing Modes in chapter 6.

  You can also set the **Auto Answer Multipoint** mode in the **Multipoint Setup** screen. For more information, refer to **Auto Answer Multipoint** at the beginning of this section on page 288.

Note

This multipoint option is not available unless you update your ViewStation EX system to support multipoint capabilities. For more

information, refer to Updating System Software From a PC on a LAN.

© Polycom, Inc. 2003

Admin Setup Screen Reference

You can access all the system screens from their respective icons on the **Admin Setup** screen. These screens are used to view or modify the setup of your ViewStation EX system.

To access the Admin Setup screen:

Select **System Info > Admin Setup**.

Figure A-2. Admin Setup Screen

Select the icon of the setup screen where you want to view or change options and press the SELECT button on the remote control.

You can also view and change the setup of your system from its Web interface. For more information, see Admin Setup/General Setup on page 254 in chapter 7.

Tip

At any time, you can return to the previous screen by pressing the MENU button on the remote control. Press the CALL•HANG-UP button to return to the main screen.

The following sections describe the screens grouped under the **Admin Setup** icon screen.

General Setup

This screen contains basic information about your system. It also allows you to change some of the system settings.

To access the General Setup screen:

Select **System Info > Admin Setup**.

On this screen, you can change the following **General Setup** options:

- **Language**—Select the language field to access the **Welcome** screen where the language flags are displayed. Select the appropriate flag associated with the language you wish to use in the system's user interface.

- **Country**—Click the **Country** field to access the **Country Setup** screen.

  The fields in the **Country Setup** screen allow you to select the country where the system is located. It also allows you to specify country-specific calling parameters for your location.

- **System Name**—Enter a name for the system using the on-screen keyboard. The first character has to be a numeric (a digit) or alphabetic (a letter) character including foreign language characters. The name can be any combination of alphanumeric characters up to 34 characters in length.

- **Auto Answer Point to Point**—This option allows you to set the Auto Answer mode for a point-to-point videoconference. It lets you determine how the system will handle an inbound call. For more detailed information about this option, refer to User Setup Screen Reference, on page 287.

- **Auto Answer Multipoint**—This option allows you to set the Auto Answer mode for a multipoint videoconference. It lets you determine how the system will handle an inbound call. For more detailed information about the **Auto Answer Multipoint** mode and the Dial-In Calling feature, refer to Dial-In Calling (Optional).

© Polycom, Inc. 2003

- **Allow Dialing**—Enable this option to allow users to place calls from the system. If this option is disabled, the system can only receive calls. You can still place calls from the Web interface.

- **Display IP and ISDN Information**—Select this option if you want your system's IP address and ISDN numbers displayed on the main user interface for ease of use. If your system is IP only, registered with a Gatekeeper, and has a Gateway number, this number is displayed as your ISDN number on the main screen. This option is enabled by default.

- **Maximum Time in Call**—Enter the maximum number of minutes allowed for call length. When that time has expired in a call, you see a message asking you if you want to hang up or stay in the call. If you do not answer within one minute, the call automatically disconnects. If you want your call to stay up indefinitely, delete the time setting in the **Maximum Time in Call** field. Make sure to do the same on all videoconferencing endpoints in that call so that the call never times out.

- **Allow User Setup**—This option is used to enable or disable the **User Setup** icon on the **System Info** screen. Administrators can use this option to prevent users from changing the **User Setup** functions.

- **Allow Address Book Changes**—If this option is enabled, then the user has access to the **New**, **Edit**, and **Delete** icons in the **Address Book** screen.

- **Keypad Audio Confirmation**—This option enables an audio response (English language) when a numeric key is depressed on the remote control.

- **Display Speed Dial**—This option allows you to disable the Speed Dial screen. When it is disabled, you access the Address Book directly.

- **Screen Saver Wait Time**—This option allows users to set the system screen saver sleeping time. The default is 15 minutes.

V.35/RS-449/RS-530 Video Network Screens

From the main **Video Network** icon, you can access screens that are specific to the V.35/RS-449/RS-530 network interface, as listed below.

To access the main Video Network screen:

Select **System Info > Admin Setup > Video Network**.

Multipoint Setup

See Multipoint Viewing Modes on page 194.

Note

This multipoint screen is not available unless you update your ViewStation EX system to support multipoint capabilities. For more information, refer to Updating System Software From a PC on a LAN.

Call Preferences

See Setting your Call Preferences on page 62.

Note

When you enable the **LAN/Internet Calls (H.323)** option in the **Call Preferences** screen, your system resets itself automatically and takes you through the initial configuration screens (see Initial Setup for IP (H.323) Calls on page 64). Existing system information is not erased during this process.

© Polycom, Inc. 2003

Video Network

See **Setting Video Network Options on page 69.** From the **Video Network** screen, you can also access the **Dialing Speeds**, **Broadcast Mode**, and **Advanced Dialing** configuration screens.

Dialing Speeds

See Selecting Dialing Speeds on page 106.

Broadcast Mode

See Setting up Satellite (H.331) Broadcast Mode on page 105.

Advanced Dialing

See Setting the Calling Profile on page 108.

Video Numbers

See Entering V.35/RS-449/RS-530 Video Numbers on page 73.

Advanced V.35

See Configuring the V.35/RS-449/RS-530 Serial Interface Control Signals on page 104.

BRI Video Network Screens

From the main **Video Network** icon, you can access screens that are specific to the BRI network interface.

To access the main Video Network screen:

Select **System Info > Admin Setup > Video Network**.

IMUX (Inverse Multiplexer)

The **IMUX** screen lets you access the **ISDN Video Numbers** screen, the **Auto Detect SPIDs** screen, the **Audio Quality** screen, the **Advanced Dialing** screen, and the **Dialing Speeds** screen.

ISDN Video Numbers

See Entering ISDN Video Numbers on page 112.

Auto Detect SPIDs

See Entering or Detecting Service Profile Ids on page 113.

Audio Quality

See Setting Audio Quality Preference on page 114.

Advanced Dialing

See Setting Channel Dialing Preferences on page 115.

Dialing Speeds

See Selecting Dialing Speeds on page 116.

Call Preferences

See Setting your Call Preferences on page 62.

© Polycom, Inc. 2003

Multipoint Setup

See Multipoint Viewing Modes on page 194.

ISDN Video Network

See Modifying ISDN Video Network Information on page 117.

LAN Setup Screens

From the main **LAN/H.323** icon, you can access groups of screens that are used for the LAN and H.323 (IP) setup.

To access the LAN/H.323 screen:

Select **System Info > Admin Setup >LAN/H.323**.

LAN & Intranet (main)

The main **LAN & Intranet** screen lets you access the **LAN & Intranet** configuration screen, the **Advanced LAN Settings** screen, the **Firewall & LAN Connection** screen.

LAN & Intranet (Configuration)

See Configuring LAN and Intranet Settings on page 85.

Advanced LAN Settings

See Selecting Advanced LAN Settings on page 89.

Firewall & LAN Connection

See Configuring Firewall and LAN Connection Settings on page 91.

H.323 Setup (main)

The main **H.323 Setup** screen lets you access the **H.323 Setup** configuration screen, the **Dialing Speeds** screen, the **Gateway and Gatekeeper** screen, the **Gateway Number** screen, and the **Gateway Setup** screen.

H.323 Setup (configuration)

See Configuring H.323 Name and Extension on page 94.

Dialing Speeds

See Selecting Dialing Speeds on page 95.

Gateway & Gatekeeper

See Configuring the Gateway and Gatekeeper on page 96.

Gateway Number

See Configuring the Gateway Number on page 100.

Gateway Setup

See Selecting your Gateway Prefix and Suffix on page 101.

Streaming

See Configuring Streaming Preferences on page 136.

SNMP Setup

See Configuring SNMP Preferences on page 138.

© Polycom, Inc. 2003

Global Address (Main)

The main **Global Address** screen lets you access the **Global Address (Server)** configuration screen, the **Global Address Book Preferences** screen, the **Private Network ISDN (PRI) Number** screen, the **Dialing Rules 1** screen, and the **Dialing Rules 2** screen.

Global Address (Server)

See Configuring Settings for the Global Address Book Server on page 120.

Global Address Book Preferences

See Setting the Global Address Book Preferences on page 121.

Preferred Alias

See Selecting your Preferred Alias on page 123.

Advanced Address Book Preferences

See Selecting the Call Type Order for OneDial Address Book Entries on page 124.

Private Network ISDN Number

See Entering the Private Network Number on page 125.

Dialing Rules 1

See Dialing Rules 1 on page 125.

Dialing Rules 2

See Dialing Rules 2 on page 128.

Global Management (Main)

The main **Global Management** screen lets you access the **Global Management** configuration screen, the **Global Management URLs** screen, and the **Global Management Info** screen**.**

Global Management (Configuration)

See Setting Global Management Preferences on page 132.

Global Management URLs

See Accessing Global Management Server URLs on page 133.

Global Management Info

See Adding Global Management Technical Support Contact Information on page 134.

Quality of Service

See Configuring Quality of Service on page 140.

Data Conference

The ViewStation EX system is T.120-compliant and supports data conferencing when paired with either a ShowStation IP system or Microsoft NetMeeting.

Data conferencing features are available only on point-to-point video calls or with external H.320 bridges/MCUs that support this feature.

© Polycom, Inc. 2003

Data conferencing is only available during ISDN (H.320) calls and must be supported by far-site systems.

Note

For more information about ShowStation IP, see ShowStation IP in chapter 2. For more information about data conferencing using NetMeeting, refer to NetMeeting in chapter 7.

To access the Data Conference screen:

Select **System Info > Admin Setup > Data Conference.** The **Data Conference** screen appears.

Figure A-3. Data Conference Screen

If you want to use the system's data conferencing capabilities, you must first enable them. Following is a description of the data conference options available on this screen:

- **First icon**—Enable the first icon if you want the system to perform data collaboration: sharing applications on your PC through the system while in an ISDN (H.320) call. Enter the IP address of your PC into the field next to this icon. This icon will only appear if you have a BRI or V.35/RS-449/RS-530 network connection on your system. This icon will not appear if your system only supports IP (H.323). For more information about application sharing and using NetMeeting during a video call, refer to NetMeeting in chapter 7 and to the *Visual Concert FX User Guide.*

- **Second icon**—You can configure your system to work in conjunction with other Polycom products, such as ShowStation® IP, WebStation™, or StreamStation™. Enter the IP address of the ShowStation IP, WebStation, or StreamStation into the field next to this icon. Your system will reboot. To see which features are supported, refer to your ShowStation IP, WebStation, or StreamStation user documentation.
- **Third icon**—Select this icon to disable data collaboration. **Off** is the default setting on this screen.

© Polycom, Inc. 2003

Telephone & Audio

The **Telephone & Audio** screen is used to configure the ViewStation EX system telephone information and audio properties.

To access the Telephone & Audio screen:

Select **System Info > Admin Setup > Phone/Audio**.

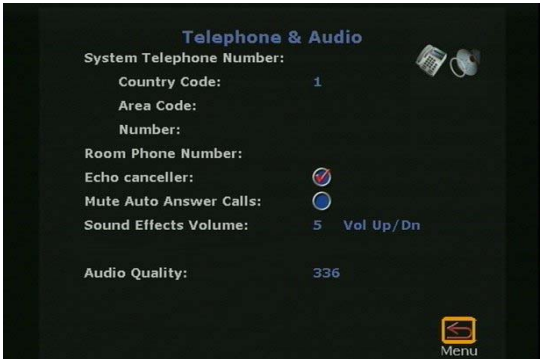

Figure A-4. Telephone & Audio Screen

The following options are displayed on the screen:

- **System Telephone Number**—Enter the **Country Code, Area Code,** and **Number** associated with the system telephone number.
- **Room Telephone Number**— You can also enter the telephone number that is assigned to the room where the system is located.
- **Echo Canceller**—This option is enabled by default. It prevents users from hearing their voice loop back from the remote site. Disable this option if another device is providing echo cancellation.
- **Mute Auto Answer Calls**—You can mute or un-mute incoming calls. Incoming calls are muted by default until you press the button on top of the microphone pod or press the mute button on the remote control.

- **Sound Effects Volume**—The level of the system sound effects can be set by highlighting this setting and using the volume keys (VOL) on your remote control.

- **Audio Quality**—Select this field to access the **Audio Quality Preference** screen**.** This screen can also be accessed from the **Audio Quality** screen **(System Info > Admin Setup > Video Network > IMUX > Audio Quality**). In this screen, you can set the call speed threshold that determines which audio protocol is used. For more information about this option and audio error concealment, refer to Setting Audio Quality Preference.

Note

Changing the audio quality preferences in a call can only be done in an H.320 (ISDN) call. No changes can be made while in an H.323 (IP) call.

Video and Cameras Screens

From the main **Video and Cameras** screen, you can access the **Monitors** screens, the **Cameras** screen, the **VCR Setup** screen, and the **VGA Input** screen (only if a Visual Concert FX is connected to your system).

To access the Video and Cameras screen:

Select **System Info > Admin Setup > Video/Camera.**

Monitors

The **Monitors** screen lets you access the **TV Monitors** screen and the **Graphics Monitor** screen.

To access the Monitors screen:

Select **System Info > Admin Setup > Video/Camera > Monitors**.

© Polycom, Inc. 2003

TV Monitors

To access the TV Monitors screen:

Select **System Info > Admin Setup > Video/Camera > Monitors > TV Monitors**. The following options can be enabled on this screen:

- **Display Icons in a Call**—This option is enabled by default. If you wish to turn off all on-screen graphics (including icons and informational text) in a live video call, deselect this option.

- **Snapshot Timeout**—By default, all slides and snapshots are displayed for a period of 4 minutes. When the display times out after four minutes, the system automatically returns to live video. However, when this option is disabled, the snapshot or slide stays on screen indefinitely until the user presses the snapshot button on the remote control to return to live video.

  Note

  If the **Snapshot Timeout** option is not disabled on both sides, the system reverts to its default timeout of four minutes.

  Note

  Number of Monitors—This option lets you select the number of monitors connected to your system. the *Integrators' Reference Manual for ViewStation EX, ViewStation FX, and VS4000*

- **PIP**—This option lets you select a Picture-in-Picture (PIP) mode:

  - **Auto:** If you select **Auto**, the PIP appears and disappears automatically depending on the position of the remote control.
  - **On:** If you select **On**, the PIP is displayed continuously.
  - **Off:** If you select **Off**, the PIP is never displayed.

- **60 fields/sec (ITU) at > = 512Kbps (Wide Screen Video)** Enable this option to have the monitor display in wide screen video format in IP and ISDN calls at 512 Kbps and above.

Graphics Monitor

This screen lets you select the appropriate VGA monitor configuration for your VGA monitor.

To access the Graphics Monitor screen:

Select **System Info > Admin Setup > Video/Camera > Monitors > Graphics Monitor**. The following screen appears:

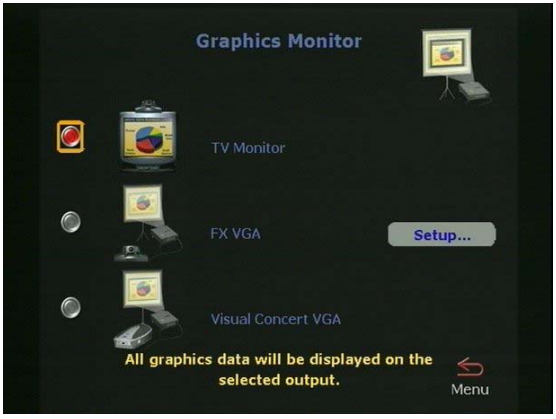

Figure A-5. Graphics Monitor Screen

The following options are available:

- **TV Monitor**—When this option is selected, no VGA monitor is available, and the graphics and video are displayed on the TV monitor.
- **EX VGA**—Enable this option if you have a high-resolution VGA monitor or projector connected to the rear panel of the system. To set up the resolution of your VGA monitor, select **Setup**.
- **Visual Concert VGA**—Enable this option if a Visual Concert FX unit is connected to your system and the graphics monitor is directly connected to the Visual Concert FX unit. By selecting this option, you enable your system to display your computer desktop on your system's VGA monitor.

© Polycom, Inc. 2003

Note

Stop and restart Visual Concert FX when changing graphics monitors: When changes are made to your system to enable different graphics monitors, you need to stop and start the Visual Concert FX unit. If a stream is being played and you choose to enable a different graphics monitor, the stream will not be displayed on the local side unless you stop and start the stream over.

EX VGA Monitor

To access the VGA Monitor screen:

Select **System Info > Admin Setup > Video/Camera > Monitors > Graphics Monitor > Setup**.

The following two options are available:

- **VGA Output with No Graphics**—Select **Black**, if you want the screen to turn black when there is no graphics or video. If you select **No Signal**, the VGA monitor will behave as if the VGA monitor is not connected.
- **VGA Resolution**—Select the **VGA Resolution** field to access the drop-down selection menu. Select the maximum resolution that your monitor or projector can support. Consult the user manual provided with the VGA monitor or projector for performance.

Cameras

To access the Cameras screen:

Select **System Info > Admin Setup > Video/Camera > Cameras.**The following options are available:

- **Far Control of Near Camera**—When you enable this option, the far site, while in a call can control your camera.

- **Backlight Compensation**—Enable this option if your background is too bright.
- **Snapshot Camera**—This option lets you select the default camera from which you want to send snapshots.
- **Camera Direction**—This option lets you set the camera to move in the same direction as the arrows on the remote control or in opposite directions.
- **Primary Camera**—This option lets you select the camera that is used when you power on the system. You cannot disconnect the main camera, but you do not have to set it as the primary camera.
- **High Resolution Cameras—**In the **High Resolution Cameras** field, you can set each of the following graphics input devices to 4CIF (a video resolution standard) by selecting its corresponding number where:

  2 = Document Camera

  3 = VCR

  This option is not available for the primary camera because the higher resolution of 4CIF affects the frame rate quality.

About 4CIF

The ViewStation EXsystem supports 4CIF, a video resolution standard defined by 704 pixels per line and 576 lines per video image. 4CIF resolution is four times higher than CIF (352 pixels per line and 288 lines per video image), a standard commonly supported on video communications systems. With 4CIF, more data is transmitted and processed, resulting in crisper images. 4CIF should only be implemented on document cameras or VGA scan converters and is not suggested nor supported for use in live video mode. 4CIF only works between video communications systems supporting this standard. If the receiving system does not support 4CIF, then the transmitting system does not send 4CIF data.

© Polycom, Inc. 2003

VCR Setup

To access the VCR Setup screen:

Select **System Info > Admin Setup > Video/Camera > VCR.** The following screen appears**:**

Figure A-6. VCR Setup Screen

The **VCR Setup** screen lets you enable the following options:

- **VCR Record Source**—You can set the VCR Record Source to the following settings:
  - **Auto:** When set to **Auto**, the VCR automatically records the current speaker in a point-to-point call.
  - **Near:** When **Near** is selected, the VCR records the near-site presentation.
  - **Far:** When **Far** is selected, the far-site is recorded. Audio from the near and far sites is always recorded.
- **VCR Audio Out Always On**—When this option is enabled, the system can operate with two VCRs, one for recording and one for play. This also allows the use of the VCR audio out for room audio applications where the near-site and the far-site audio are required with any video input selected.

Notes

1. If you connect the same device to both the VCR input and VCR output, then you may need to disable this feature to prevent an audio feedback loop.

2. VCR recording is not supported in 3 and 4 monitor configurations: to record a videoconference, users need to set their systems for 2 monitors. VCR recording of images that appear on the third or fourth monitor is not supported.

VGA Input Calibration

This screen is only visible if a Visual Concert FX unit is connected to the ViewStation EX system.

To access the VGA Input Calibration screen:

Select **System Info > Admin Setup > Video/Camera > VGA Input**. The **VGA Input Calibration** screen appears:

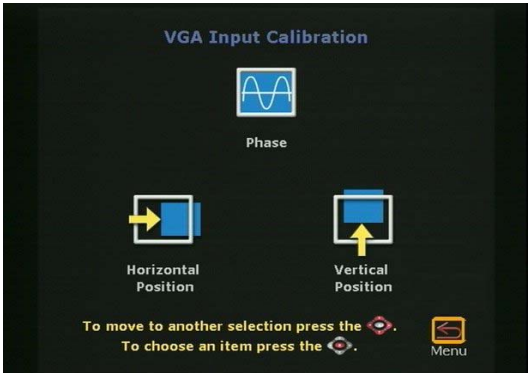

Figure A-7. VGA Input Calibration Screen

Usually, Visual Concert FX can automatically synchronize with the PC or laptop. However, there are a few instances when it is necessary to calibrate Visual Concert FX to the PC using the tools on this screen.

- **Phase**—This option lets you can calibrate the VGA input by increasing or decreasing the phase.
- **Horizontal Position**—This option lets you calibrate the VGA input in the horizontal position by setting the calibration frame to the left or right.

© Polycom, Inc. 2003

- **Vertical Position**—With this option you can calibrate the VGA input in the vertical position by moving the calibration frame up or down.

Security

The **Security** screen lets you set the passwords used to access your ViewStation EX system remotely. You are not required to set passwords on your system.

To access the Security screen:

Select **System Info > Admin Setup > Security.**

- **Admin Password**—This password is used to protect nearly all setup screens in the user interface. When using the system Web interface, you are required to enter the admin password, if one has already been set in the **Security** screen.

- **Meeting Password**—This password is used:

  - As the password for the system when it it is used as an MCU in a multipoint conference.
  - For dialing into an MCU with a password already set.
  - As the password for viewing slides on the Web interface.
  - As the password for viewing streams on the Web interface.
  - For accessing Closed Caption on the Web interface.

  If no password is set, the user is not prompted for or does not need to enter the Meeting Password.

- **Software Update Password**—This password is used for ISDN software upgrades of your system. The system can be upgraded from a remote endpoint while in an ISDN call. This password also protects your system from any unwanted updates.

- **Enable Remote Access**—This option gives administrator the the capability to lock out access to FTP, Web, Telnet, and SNMP. The FTP, Web, Telnet, and SNMP options are enabled by default.

- **Enable Remote Access**—This option gives administrator the the capability to lock out access to FTP, Web, Telnet, and SNMP. The FTP, Web, Telnet, and SNMP options are enabled by default.
- **Crypto Resync**—This option is only available if a V.35/RS-449/RS-530 network interface is attached to your system.

Crypto Resync Pulse

This screen is specific to a ViewStation EX system with a V.35/RS-449/RS-530 network interface.

To access the Crypto Resync Pulse screen:

1. Select **System Info>Admin Setup>Security**.
2. In the **Security** screen, select the **Crypto Resync** option.

Note

For more configuration information, refer to Enabling Crypto Resync on page 110.

Software and Hardware Screens

To access the Software, RS-232, Hardware Information, Send Address Book, and Far Site Software Update, and System Options screens:

Select **System Info > Admin Setup > Software/Hardware**.

© Polycom, Inc. 2003

Software

The **Software** screen displays the system's serial number, BOOTUI number, software version, network interface type, ISDN version, and ISDN switch protocols information.

To access the Software screen:

Select **System Info > Admin Setup > Software/Hardware > Software.**

RS-232

The RS-232 interface allows users to access the system's ARENA (Application Real-Time-Enabled Network Architecture) Application Programming Interface (API). This API is a set of commands implemented within the shell. The commands are available for advanced users who want to automate some of the control features of the system.

On the **RS-232** screen, you can configure the **Baud Rate**, the **RS-232 Mode** and the **Flow Control** options.

To access the RS-232 screen:

Select **System Info > Admin Setup > Software/Hardware > RS-232.**

Note

For details about the RS-232 options, refer to the *Integrators' Reference Manual for ViewStation EX, ViewStation FX, and VS4000* or to the *ViewStation EX, ViewStation FX, and VS4000 ARENA API Programmer's Guide.*

Hardware Information

The **Hardware Information** screen contains information about the hardware components that make up your system.

To access the Hardware Information screen:

Select **System Info > Admin Setup > Software/Hardware > Hardware.**

If you have a Visual Concert FX connected to your system, information about **Visual Concert Software**, **VCFX In Resolution,** and **VCFX Out Resolution** is displayed on this screen.

Send Address Book

If you are in an ISDN (H.320) call, you also have access to the **Send Address Book** screen. For more information about the **Send Address Book** screen, refer to Transferring the Address Book on page 164.

Far Site Software Update

If you are in an ISDN (H.320) call, you also have access to the **Far Site Software Update** screen. For information about the **Far Site Software Update** screen, refer to Upgrading Software over ISDN (H.320) on page 47.

System Options

The **System Options** screen contains information that enables multipoint features on your ViewStation EX system and indicates that the feature has been enabled.

To upgrade your ViewStation EX system, you must get the multipoint upgrade software from your reseller. See the **Upgrading Software** section of this manual for more information.

© Polycom, Inc. 2003

B

Interoperability Information

H.320 Endpoint Interoperability

Table B-1. H.320 Endpoint Interoperability

Manufacturer	Model	Version
iPower	600 Series	5.0 and 4.0.8
iPower	900 Series	5.0 and 4.0.8
iPower	9000 Series	5.0
Sony	PCS6000	4.1
Tandberg	1000	B5.1
Tandberg	2000	B5.1
Tandberg	6000	B5.1
Tandberg	800	B5.1
Tandberg	500	B5.1
VCON	Cruiser	4.6
VCON	Media Connect 8000	4.6
VTEL	Galaxy	2.2.0.070

© Polycom, Inc. 2003

H.323 Endpoint Interoperability

Table B-2 H.323 Endpoint Interoperability

Manufacturer	Model	Version
Microsoft	NetMeeting	2.1
Microsoft	NetMeeting	3.0 (no application sharing, file transfer, or whiteboarding)
Microsoft	NetMeeting	3.01 (no application sharing, file transfer, or whiteboarding)
iPower	600 Series	5.0 and 4.0.8
iPower	900 Series	5.0 and 4.0.8
iPower	9000 Series	5.0
Sony	PCS6000	2.6
Tandberg	1000	B5.1
Tandberg	2500	B5.1
Tandberg	6000	B5.1
Tandberg	800	B5.1
Tandberg	500	B5.1
VCON	Cruiser	4.6
VCON	Escort	4.6
VCON	Media Connect 8000	4.6
VCON	Falcon	3.0
VCON	Vigo	5.1
VTEL	Galaxy	2.2.0.70

MCU H.320 Interoperability

Table B-3. MCU H.320 Interoperability

Manufacturer	Model	Interoperability
Polycom	MGC-100	chair control, far-end camera control, T.120, Conference on Demand, People+Content
Lucent	Multi-Point Conferencing Unit	chair control far-end camera control, and T.120 do not work in cascaded calls

MCU H.323 Interoperability

Table B-4. MCU H.323 Interoperability

Manufacturer	Model	Version
Polycom	MGC-25	5.5
Polycom	MGC-50	4.6, 5.0
Polycom	MGC-100	4.6, 5.0
Whitepine	Meeting Point	5.0
Ezenia	MCS	1.2.2
Radvision	MCU	2.2.0.9d
Radvision	ViaIP 400 MCU	2.2.2651.0
Ezenia	Encounter 3000 ECMS	1.01

© Polycom, Inc. 2003

Gateway/Gatekeeper/T120 Server Interoperability

Table B-5. Gateway/Gatekeeper/T120 Server Interoperability

Manufacturer	Model	Version
Polycom	MGC-100/gateway	4.5, 5.0
Polycom	PathNavigator	1.1, 5.0
Cisco	MCM Gatekeeper on the 3640 router	12.1 build 7
Cisco	2515 Gatekeeper	
Whitepine	Meeting Point Gatekeeper	5.0
Ezenia	Gatekeeper	1.2.2
Radvision	L2W-323BRI Gateway/Gatekeeper	2.2.3.2.5
Radvision	L2W-323PRI Gateway/Gatekeeper	2.2.3.2.5
Radvision	MCU Gatekeeper	2.2.1.0.9d
Radvision	NGK 200 Gatekeeper	1.0
Radvision	T120 Data Collaborator Server	1.07
Radvision	ECS/viaIP Gatekeeper	2.0.2.2
Ezenia	Encounter 3000 Netgate/Gatekeeper	1.0
Ezenia	Encounter 3000 ECMS Gatekeeper	1.01

Firewall/NAT Interoperability

Table B-6. Firewall/NAT Interoperability

Manufacturer/Model	Version
Cisco router	12.2 build 7
Linksys	1.40.2
NetGear	3.25
SMC 7004BR	1.93s
SMC 7004BR	1.20
Siemens	1.1
Cisco PIX	6.1.2

© Polycom, Inc. 2003

C

ViewStation EX Technical Specifications

ViewStation EX Technical Specifications

Table C-1. ViewStation EX Technical Specifications

Certifications and Compliance	ITU H.323 and H.320 compliant Cisco AAVID Certified
The Polycom Office Experience	People+Content™ allows dual display of video and PC graphics Conference on Demand™ initiates unscheduled MGC calls from the endpoint Call Detail Records enables billing of calls and tracking with Global Management System Polycom Video Error Concealment (PVEC)™ for improved video quality on networks with packet loss Global Management System™ for centralized management Global Directory Server for live global address book PathNavigator™ for easier call placement and network cost optimization MGC Click and View™ integration for individual screen layouts
User Interface	User-friendly graphical user interface that is easy to read from a distance Hand-held, ergonomic remote control Custom logo on home screen with speed dial numbers Web Interface (Internet Explorer 5.5 & 6.0; Netscape Navigator 6.0 & 6.1)
Bandwidth	Max Data Rate H.320: up to 512 Kbps Max Data Rate H.323: up to 768 Kbps

© Polycom, Inc. 2003

Video Standards	H.261, Annex D H.263+ Annexes: L, F, T, I, J, U, u H.263++ Annex D ITU 60 fields per second letterbox
Video Features	2-monitor support to simultaneously display full screen video from up to 4 endpoints plus PC content on a separate XGA projector Automatic VCR recording of all endpoints based on the person who is talking Automatic Picture in Picture (PIP)
Video Inputs (2 Inputs + camera)	Integrated main camera 1 x MiniDin S-Video (document camera) 1 x RCA/Phono, composite (VCR)
Video Formats	NTSC, PAL, XGA, SVGA, VGA
Video Outputs (5 Outputs)	2 x MiniDin S-Video (Support for 2 independent monitors) 1 x RCA/Phono, composite (monitor) 1 x RCA/Phono, composite (VCR) 1 x XGA (projector)
Integrated Main Camera	Ultra-quiet, ultra-fast pan, tilt, zoom (PTZ) 65° Field of View Tilt Range: +/- 25° (up/down) Pan Range: +/- 100° (left/right) Total Field of View: 265° 12x Zoom; f-4.2 to 42mm F=1.85 to 2.9 mm Auto Focus Automatic White Balance 20 camera presets (10 local and 10 far end) Voice tracking to presets Far end camera control
People+Content™	Dual images (transmits people and high resolution content simultaneously) Dual audio (transmits audio from room microphones and PC simultaneously) Available on IP and ISDN Works from any endpoint with embedded MCU (not just host site)

Live People Video Resolution	4CIF (704 x 576) CIF (352 x 288) QCIF (176 x 144)
Live PC Content Resolution	XGA (1024 x 768) SVGA (800 x 600) VGA (640 x 480) 4CIF or CIF for S-Video and composite inputs
Still Image Transfer	CIF, 4CIF (H.261 Annex D), 16 CIF High resolution (H.263)
Optional Visual Concert FX	Tabletop device (for audio and video input from PC or Macintosh) Input: up to 1280x1024, 60 Hz Output: up to 1024x768, 60 Hz 1 x audio input for PC 1 x video input for PC up to 1280x1024, 60 Hz 1 x video out for projector up to 1024x768, 60 Hz 3 x 10/100 Ethernet hub
Other Content Input Options	pcPresent™ for Microsoft® PowerPoint® presentations from your PC Polycom SNAP for high resolution graphics capture of PC content
Audio Standards	7 kHz G.722, G.722.1 3.4 kHz with G.711, G.728
Audio Features	Instant Adaptation Echo Cancellation Automatic Gain Control (AGC)- voice activated Automatic Noise Suppression (ANS) Built-in tonal speaker test Audio level meter Audio mixer Telephone POTS support Ability to talk over VCR audio

© Polycom, Inc. 2003

Digital Tabletop Microphone	360° voice pick-up, unidirectional performance Automatic room noise reduction Gated mixer built into microphone 3 Hyper-cardiod microphones in each microphone pod Mute button on each microphone pod Includes 1 microphone pod Can be mounted to ceiling or walls
Audio Inputs (4 Inputs)	RJ-9 to microphone (daisy chain up to 2 microphone pods) 2 x RCA / Phono line level (VCR) 1 x RCA / Phono line level (Mixer/Auxiliary)
Audio Outputs (4 Outputs)	2 x RCA / Phono line level (main audio) 2 x RCA / Phono line level (VCR)
Frame Rates (point-to-point)	15 fps - 30 fps Intelligently selects frame rate for best video performance TV-quality letterbox 60/50 fields video for NTSC/PAL at 512 kbps and above
Optional Embedded MP*Plus*	Supports mixed combinations of IP, ISDN, and analog telephone calls Supports IP telephones Supports normal analog telephones Automatic IP and ISDN downspeeding Dial-in and dial-out during multipoint calls Continuous presence or voice switched Automatic multipoint presentation modes to automatically switch between presenter and continuous presence modes Chair control from endpoints or host system on IP Chair control from endpoints or host system on ISDN Embedded multipoint for 5 sites (4 IP/ISDN sites + 1 POTS audio) Cascade up to 14 sites (10 IP/ISDN sites + 4 POTS audio) Mixed network cascading Password protection for incoming calls Supports People+Content dual streams from any endpoint (not just host site)

Network Features	Automatic H.320/H.323 calling Downspeeding over IP and ISDN OneDial intelligent call management attempts call on preferred network (IP or ISDN) and automatically rolls over to secondary network if needed Maximum call length timer Auto-SPID detection and configuration NATO standard KG-194/KIV-7 encryptor support with on-screen and address book dialing Software upgradable Inverse Multiplexer (IMUX) Dial ISDN lines separately or simultaneously
Quality of Service and Experience - iPriority	Polycom Video Error Concealment (PVEC) for concealing packet loss IP Precedence (ToS) DiffServ DHCP (CoS) Dynamic bandwidth allocation Proactive network monitoring Packet and jitter control Network Address Translation (NAT) support Automatic NAT discovery Asymmetric speed control Fixed TCP/UDP port firewall support Lip synchronization Echo cancellation Echo suppression Auto gatekeeper discovery Automatic gateway dialing profiles Specify outbound call routing for gateway/ISDN Closed captioning and text chat support both in and out of calls Keypad audio confirmation makes dialing easy

© Polycom, Inc. 2003

Security Features	Independently tested for endpoint security Enhanced integration for independently certified corporate and classified encryption devices Secure password authentication Unique factory default passwords Administrator password Dial-in meeting password Do not disturb meeting feature for point to point Do not disturb meeting feature for multipoint calls Select which menu screens to password protect SNMP security alerts for failed and successful password authentication attempts Option to disable remote interfaces (FTP, SNMP, Telnet, HTTP, streaming) Option to disable mixed protocol multipoint calls
Network Interfaces Supported	2 independent 10/100 Ethernet ports for IP (LAN, DSL, cable modem) Integrated Ethernet switch 1 x POTS for voice Optional Quad BRI (Basic Rate Interface) Optional 2 port Serial Module (V.35/RS-530/RS-449 with RS-366 dialing) Optional wireless LAN support via Ethernet port
Ethernet Connectivity	TCP/IP, HTTP, DNS, WINS, SNMP, DHCP, ARP, FTP, Telnet T.120 interface for Microsoft® NetMeeting Internal live video unicast or multicast stream to Apple® Quicktime, Cisco IP/TV
Directory Services	1000+ number local directory 10,000+ number global directory Unlimited multipoint entries Live address book with Polycom Global Address Book automatically and quickly updates directory with address changes or new endpoints Live address book with Polycom Global Address Book automatically and quickly removes endpoints from directory if they are turned off Polycom Global Address Book integrates with Active Directory / LDAP Automatic ISDN localization of calls

System Management	SNMP management Software upgrades via PC, IP, or in a ISDN video call Integrated Web server for remote management and Microsoft® PowerPoint presentations Remote administrator video-only monitoring of room or calls from integrated Web server (enabled/disabled from endpoint for security) Built-in extensive Call Detail Records (CDR) that do not require separate external management system Account number validation at call initiation integrated with Polycom Global Management System for billing purposes Administrator configurable dialing speeds Complete support for The Polycom Office including: - Polycom Global Management System™ - Polycom Global Address Book - Polycom OneDial™ - Polycom PathNavigator™
Other ITU Supported Standards	H.221 communications Bonding, Mode 1 H.281 far-end camera control H.225, H.245 Annex Q standard for FECC in H.323 calls
Data Port	RS-232 control port/data communications port (1200 baud to 115k baud asynchronous) API for custom integration with remote devices such as Crestron™ and AMX™ control systems
Electrical	Auto-sensing power supply Operating voltage/power 90-260 VAC, 47-63 Hz/40 watts
Environmental Specifications	Operating Temperature: 0 to 40° C Operating Humidity: 10 to 85% R.H. non-condensing Non-Operating Temperature: -40 to 70° C Non-Operating Humidity (non-condensing): 10 to 90%
Physical Characteristics	Dimensions (W/H/D): 43.8 cm x 8.8 cm x 46.7 cm Base unit weight: 4.7 kg / 10 lbs
Language Support	Chinese, English, French, German, Italian, Japanese, Norwegian, Portuguese, Spanish
Warranty	One year parts and labor

Table C-2

© Polycom, Inc. 2003

D

Security Features

This appendix contains ViewStation EX reference information on security-related screens and features.

Topics in This Chapter

The following topics are included in this chapter.

Topic	Description	Page
Security Screens	This section describes the **Admin and Meeting Password** and the **Security** screens.	332
PMAC Security Features	The Polycom Management Access Control Wizard (PMAC) lets you password protect on screens on a menu-by-menu basis with a special access password.	333
Security Features and Enhancements	This section describes the various security features and enhancements such as Digest and Adtran 512.	336

© Polycom, Inc. 2003

Security Screens

This section provides information about the **Admin and Meeting Password** screen and the **Security** screen.

Admin and Meeting Password Screen

The **Admin and Meeting Password** screen is part of the out-of-box configuration sequence. It features unique factory default passwords: it contains an initial administrator password, which is your system's serial number, and a meeting password that is randomly generated. For additional information, refer to Setting the Administrator and Meeting Passwords in chapter 3.

Security Screen

The **Security** screen lets you set the passwords used to access your ViewStation EX system remotely. You are not required to set passwords on your system.

To access the Security screen:

>> Select **System Info > Admin Setup > Security.**

❑ **Admin Password**—This password is used to protect nearly all setup screens in the user interface. When using the system Web interface, you are required to enter the admin password, if one has already been set in the **Security** screen.

❑ **Meeting Password**—This password is used:

- As the password for the system when it is used as an MCU in a multipoint conference.
- For dialing into an MCU with a password already set.
- As the password for viewing slides on the Web interface.
- As the password for viewing streams on the Web interface.

- For accessing Closed Caption on the Web interface.

If no password is set, the user is not prompted for or does not need to enter the Meeting Password.

- **Software Update Password**—This password is used for ISDN software upgrades of your system. The system can be upgraded from a remote endpoint while in an ISDN call. This password also protects your system from any unwanted updates.

- **Enable Remote Access**—This option gives administrator the the capability to lock out access to FTP, Web, Telnet, and SNMP. The FTP, Web, Telnet, and SNMP options are enabled by default.

- **Crypto Resync**—This option is only available if a V.35/RS-449/RS-530 network interface is attached to your system.

PMAC Security Features

The Polycom Management Access Control Wizard (PMAC) allows you to select which menu screens to password protect on a menu-by-menu basis with a special access password. PMAC offers other features which are not covered in this section. They are described in chapter 7.

This application is available on your software CD and can also be downloaded from the Polycom Website (Go to http://www.polycom.com/resource_center/. Then select Software Downloads.)

This section contains information about:

Creating the Management Password (special-access password)

Password-Protecting Individual Screens

© Polycom, Inc. 2003

Creating the Management Password

The Management Password is different from the Admin Password. The Admin Password allows access to the Admin Setup screens. The Management Password allows the administrator to password-protect (lock) specific screens. In other words, the Admin Password allows a user to access the admin section, but the Management Password is needed to access a specific screen.

To create a Management Password:

1. Launch the **PMAC** utility**.**
2. Enter the **IP address** and the **Password** of the system.
3. Select the **Management Password** tab.
4. Enter the Management Password. Re-enter the Management Password.
5. Clisk the **Apply** button to install the settings.

When you try to access a screen that is password protected, you are prompted to enter the Management Password. If the wrong password is entered, you are not allowed to access the screen.

The Management Password overrides the Admin Password. For example, if you have both an Admin Password and a Management Password, use the Management Password to log into the system from the PMAC utility.

Table D-1. Password Usage with PMAC

Admin Password	Management Password	Password to Use When Using PMAC
Yes	No	Admin
Yes	Yes	Management
No	Yes	Management
No	No	No password

Password-Protecting Individual Screens

In order to password-protect screens, a Management Password must be created first (see preceding section). Then, from the **Screen Access** tab, you can specify which screens to lock.

To password-protect (lock) an individual screen:

1. Launch the **PMAC** utility**.**
2. Enter the **IP Address** and **Password** of your system.
3. Select the **Screen Access** tab.
4. Double- click an item in the left column (**Select Screens from**). While holding the **Ctrl** key on the keyboard, single-click as many items in that column.
5. Press the **-->** button to move items from the left to the right column. Items in the right column (**Do not Allow Access to Screens**) are password-protected screens.
6. Select the **Apply** button to install the settings.

To remove password-protected screens:

1. Double-click an item in the right column of the **Screen Access** screen. While holding the **Ctrl** key on the keyboard, single-click as many items in that column.
2. Press the **<--** button to move items from the right to the left column.
3. Select the **Apply** button to install the settings.

© Polycom, Inc. 2003

Security Features and Enhancements

Password for pcPresent (PowerPoint slides)

When you are presenting launching a presentation from a PC, you can specify a password for that presentation. Users must enter the specified password in order to load the presentation. If you wish to view the presentation, you must enter the meeting password.

Digest Implementation

Digest authentication is used for sending passwords to the Web server for enhanced security.

Basic authentication, which is the current form of authentication, uses a very simple algorithm to encode the user name and password. For example, people "snooping" on the packets sent to your system can capture these packets and decode the admin password in five minutes. Digest authentication is a much more complicated algorithm than basic authentication. Even if people manage to capture one of the packets that contain Digest authentication, they cannot decipher the admin password .

Adtran 512

Polycom has enabled enhanced integration with the Adtran 512 ISU IMUX including RS-366 dialing from the system's user interface (V.35). This allows end-users to dial calls from the system's address book or dialing screen instead of having to manually enter in the number on the Adtran keypad. This is especially useful when used with KIV or KG encryption devices that require an external IMUX such as the Adtran 512 ISU to dial calls.

Disabling Mixed Protocols

The option **Allow H.320 and H.323 Mixed Calls** (Admin Setup>Video Network>Call Preferences) allows the administrator to disable the ability to place or received mixed multipoint calls for security reasons.

This option is only accessible if the **V.35 Video Calls** or **ISDN Video Calls** and **LAN/Internet Calls** options are both enabled on the **Call Preferences** screen.

Telnet and FTP Timeout

There is a 30-second timeout when logging into FTP and Telnet. This is intended to make the connection time out to free it in case the login is unsuccessful.

© Polycom, Inc. 2003

Safety and Legal Notices

Important Safeguards

Read and understand the following instructions before using the system:

- Close supervision is necessary when the system is used by or near children. Do not leave unattended while in use.
- Only use electrical extension cords with a current rating at least equal to that of the system.
- Always disconnect the system from power before cleaning and servicing and when not in use.
- Do not spray liquids directly onto the system when cleaning. Always apply the liquid first to a static free cloth.
- Do not immerse the system in any liquid or place any liquids on it.
- Do not disassemble this system (except as instructed in the manufacturer's instructions). To reduce the risk of shock and to maintain the warranty on the system, a qualified technician must perform service or repair work.
- Connect this appliance to a grounded outlet.
- In case of lightning storms, disconnect the telephone line cord from the system, and only connect the system to surge protected power outlets.
- The socket outlet to which this apparatus is connected must be installed near the equipment and must always be readily accessible.
- Keep ventilation openings free of any obstructions.
- SAVE THESE INSTRUCTIONS.

License Restrictions

THE SOFTWARE PROGRAMS CONTAINED OR DESCRIBED HEREIN ARE CONFIDENTIAL INFORMATION AND PROPRIETARY PRODUCTS OF POLYCOM OR ITS LICENSORS.

Buyer shall not sublicense or otherwise distribute any of the Subject Programs except to End Users and/or resellers who have entered into a Sublicense Agreement. For purposes of this Agreement a “Sublicense Agreement” shall mean a written license agreement between the Buyer and its purchaser, or, in the case of any sale by Buyer to a reseller, between such reseller and the End User, that is either 1) signed by the End User or 2) included with the Documentation, in such a manner that the End User reasonably indicates its acceptance of the Sublicense Agreement by turning on and using the Computer Equipment. Polycom shall include so-called “break the seal software licenses” with the Documentation, and Buyer shall not remove or alter any such Sublicense Agreements or any notifications or warning stickers relating thereto. Buyer shall not waive, amend, or otherwise modify any Sublicense Agreement without Polycom’s prior consent.

Title to all Subject Programs shall at all times remain and vest solely with Polycom and its licensors. Buyer acknowledges Polycom, Inc.’s claim that the Subject Programs are its trade secret and confidential property, and shall treat them as such. Buyer will not attempt to disassemble, decompile, reverse-engineer or otherwise endeavor to discover or disclose the methods and concepts embodied in the Subject Programs. Except as expressly allowed under this Agreement, the Buyer shall not copy, modify, transcribe, store, translate, sell, lease, or otherwise transfer or distribute any of the Subject Programs in whole or in part, without prior authorization, in writing, from Polycom. Buyer shall not remove or destroy any copyright, patent, trademark or other proprietary mark or notice on Computer Equipment, and shall reproduce any such marks on any copies of Subject Programs that it makes hereunder.

You shall not and shall not allow any third party to 1) decompile, disassemble, or otherwise reverse-engineer or attempt to reconstruct or discover any source code or underlying ideas or algorithms of the software by any means whatsoever or 2) remove any product.

© Polycom, Inc. 2003

Warranty

Polycom, Inc. warrants its products to be free of defects in materials and factory workmanship for a period of twelve (12) months from date of purchase. This warranty does not apply to damage to products resulting from accident, misuse, service or modification by anyone other than a Polycom, Inc. authorized service facility/dealer. The warranty is limited to the original purchaser and is not transferable. Any liability of Polycom, Inc. or its suppliers with respect to the product or the performance thereof under any warranty, negligence, strict liability or other theory will be limited exclusively to product repair or replacement as provided above. Except for the foregoing, the product is provided “as is” without warranty of any kind including without limitation, any warranty of merchantability or fitness for a particular purpose. The entire risk of the quality and performance of the software programs contained in the system is with you.

Limitation of Remedies and Damages

Polycom, Inc., its agents, employees, suppliers, dealers and other authorized representatives shall not be responsible or liable with respect to the product or any other subject matter related thereto under any contract, negligence, strict liability or other theory for any indirect, incidental, or consequential damages, including, but not limited to loss of information, business, or profits.

The law of certain states or nations does not permit limitation or exclusion of implied warranties and consequential damages, so the above limitations, disclaimers, or exclusion may not apply to you. This warranty gives you special legal rights. You may also have other rights that vary by state and nation.

Warning

This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

USA and Canadian Regulatory Notices

FCC Notice

Part 15 FCC Rules

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

1) This device may not cause harmful interference, and 2) this device must accept any interference received, including interference that may cause undesired operation.

Class A Digital Device

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

In accordance with Part 15 of the FCC rules, the user is cautioned that any changes or modifications not expressly approved by Polycom Inc. could void the user's authority to operate this equipment.

Part 68 FCC Rules

This equipment complies with Part 68 of the FCC rules. On the label of this equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this information must be provided to the telephone company.

This equipment may not be used on a coin service or party line.

If you experience trouble with your ViewStation EX/FX/VS4000, disconnect it from the telephone line to determine if the registered equipment is malfunctioning. For repair or warranty information, please contact Polycom Inc. at 1-888-248-4143 or 4750 Willow Road, Pleasanton, CA 94588-2708, USA. Contact information may also be found at http://www.polycom.com/. If the system is causing harm to the network, the telephone company may request that you disconnect it until the problem is corrected.

If your ViewStation EX/FX/VS4000 causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. However, if advance notice is not practical, you will be notified as soon as possible. You will be advised of your right to file a complaint with the FCC if you believe it is necessary.

Your telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of your equipment. If they do, you will be given advance notice so that you may make any changes necessary to maintain uninterrupted service.

The REN is useful to determine the quantity of devices that may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of RENs of all devices that may be connected to a line, is determined by the total RENs, contact the local telephone company.

FCC compliant telephone cords and modular plugs are provided with this equipment. This equipment is designed to be connected to the telephone network or premises' wiring using a compatible modular jack, which is Part 68 compliant. See installation instructions for details.

WHEN PROGRAMMING EMERGENCY NUMBERS AND/OR MAKING TEST CALLS TO EMERGENCY NUMBERS:

1) Remain on the line and briefly explain to the dispatcher the reason for the call.

2) Perform such activities in the off-peak hours, such as early morning or late evening.

Industry Canada (IC)

This class A digital apparatus complies with Canadian ICES-003.

Cet appareil numerique de la classe A est conforme à la norme NMB-003 du Canada.

The Industry Canada label identifies certified equipment. This certification means that the equipment meets telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations. Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

The Ringer Equivalence Number (REN) assigned to each relevant terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the RENs of all the devices does not exceed 5.

The REN of this equipment is either marked on the unit or included in the new style USA FCC registration number. In the case that the REN is included in the FCC number, the user should use the following key to determine the value:

- The FCC number is formatted as US:AAAEQ#TXXX.
- # is the Ringer Equivalence Number without a decimal point (e.g. REN of 1.0 will be shown as 10, REN of 0.3 will be shown as 03). In the case of a Z ringer, ZZ shall appear. In the case of approved equipment without a network interface or equipment not to be connected to circuits with analog ringing supplied, NA shall appear.

EEA Regulatory Notices

CE Mark

This ViewStation EX/FX/VS4000 has been marked with the CE mark. This mark indicates compliance with EEC Directives 1999/5/EC. A full copy of the Declaration of Conformity can be obtained from Polycom Ltd., 270 Bath Road, Slough UK SL1 4DX.

Declaration of Conformity:

Hereby, Polycom Ltd. declares that this ViewStation EX/FX/VS4000 is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

Konformitetserklæring:

Hermed erklærer Polycom Ltd., at indestående ViewStation EX/FX/VS4000 er i overensstemmelse med de grundlæggende krav og de relevante punkter i direktiv 1999/5/EF.

Konformitätserklärung:

Hiermit erklärt Polycom Ltd., dass der ViewStation EX/FX/VS4000 die grundlegenden Anforderungen und sonstige maßgebliche Bestimmungen der Richtlinie 1999/5/EG erfüllt.

Δήλωση Συμμόρφωσης:

Δια του παρόντος, η εταιρεία Polycom Ltd. δηλώνει ότι η παρούσα συσκευή (δρομολογητής) ViewStation EX/FX/VS4000; πληροί τις βασικές απαιτήσεις και άλλες βασικές προϋποθέσεις της Οδηγίας 1999/5/ΕΚ.

Vaatimustenmukaisuusvakuutus:

Polycom Ltd. vakuuttaa täten, että ViewStation EX/FX/VS4000 on direktiivin 1999/5/EC keskeisten vaatimusten ja sen muiden tätä koskevien säännösten mukainen.

Déclaration de conformité:

Par la présente, Polycom Ltd. déclare que ce ViewStation EX/FX/VS4000 est conforme aux conditions essentielles et à toute autre modalité pertinente de la Directive 1999/5/CE.

Dichiarazione di conformità:

Con la presente Polycom Ltd. dichiara che il ViewStation EX/FX/VS4000 soddisfa i requisiti essenziali e le altre disposizioni pertinenti della direttiva 1999/5/CE.

Verklaring van overeenstemming:

Hierbij verklaart Polycom Ltd. dat diens ViewStation EX/FX/VS4000 voldoet aan de basisvereisten en andere relevante voorwaarden van EG-richtlijn 1999/5/EG.

Declaração de Conformidade:

Através da presente, a Polycom Ltd. declara que este ViewStation EX/FX/VS4000 se encontra em conformidade com os requisitos essenciais e outras disposições relevantes da Directiva 1999/5/CE.

Declaración de conformidad:

Por la presente declaración, Polycom Ltd. declara que este ViewStation EX/FX/VS4000 cumple los requisitos esenciales y otras cláusulas importantes de la directiva 1999/5/CE.

Överensstämmelseförklaring:

Polycom Ltd. förklarar härmed att denna ViewStation EX/FX/VS4000 överensstämmer med de väsentliga kraven och övriga relevanta stadganden i direktiv 1999/5/EG.

WARNING

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Australia

Mains Powered POTS Voice Telephony Without Emergency 000 Dialing

Warning: This equipment will be inoperable when mains power fails.

Japan

この装置は、情報処理装置等電波障害自主規制協議会（ＶＣＣＩ）の基準に基づラスＡ情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあ

Underwriters Laboratories Statement

The system is intended to be powered only by the supplied power supply unit.

Special Safety Instructions

Follow existing safety instructions and observe all safeguards as directed.

Installation Instructions

Installation must be performed in accordance with all relevant national wiring rules.

Index

Numerics

4CIF resolution, 309
60 fields/sec at>=512Kbps, 306

A

Address Book
  access, 161
  adding an entry, 162
  creating a meeting entry, 189
  deleting an entry, 164
  editing an existing entry, 163
  erasing entries, 286
  multipoint entries, 166
  placing a call from, 153
  placing a call, 153
  send, 315
Admin Password, 312, 332
Admin Setup screen reference, 292
Admin Setup Web icons, 253
Administrator Password, 78
Advanced configuration
  BRI, 111
  Gateway and Gatekeeper, 98
  IP, 93
  V.35/RS-449/RS-530, 103
Advanced Dialing
  BRI, 115
  V.35/RS-449/RS-530, 71, 109
Advanced Network Statistics, 281
Allow Address Book Changes, 294
Allow Remote Monitoring, 132, 290
Allow System to be a DHCP Server, 46
Allow User Setup, 255, 294
Analog call
  adding a video call to, 160
  adding to a video call, 159
  disconnecting, 159
  placing, 158
Annex D information, 238
Answering a call
  manually, 155, 156
Audio
  advanced troubleshooting, 265
  audio error concealment, 305
  basic troubleshooting, 26
  diagnostics, 281
  protocols, 305
  test levels, 285
Audio Meter, 285
Audio Quality Preference (BRI), 114
Auto Answer Multipoint, 199, 207, 288
Auto Answer Point to Point, 287, 293
Auto H.323 Dialing, 65, 94
Auto-Detect SPIDs (BRI), 75, 113

B

Backlight Compensation, 290
BRI
  advanced configuration, 111
  Advanced Dialing, 116
  Audio Quality Preference configuration, 114
  Auto-Detect SPIDs, 75
  configuration screen reference, 296
  Dialing Speeds, 116
  IMUX configuration, 297
  IMUX, 40
  initial configuration, 74
  ISDN Video Numbers, 74, 112
  network interface installation, 38
  SPIDs, 113
  Video Network configuration, 117
Broadcast Mode (V.35/RS-449/RS-530), 70,

© Polycom, Inc. 2003

105

C

Cables
- Ascend HD-44M to HD-44M (V.35/RS-449/RS-530), 31, 37
- HD-44M to DB-25M/RS-366 and M34 Winchester (V.35/RS-449), 31, 37
- HD-44M to RS-449/S-422 Y (V.35/RS-449/RS-530), 31, 37
- supplied for ViewStation EX, 20
- V.35/RS-449/RS-530 cable adapter kit, 38

Call Detail Report 258
Call Hangup Choices, 152
Call Preference
- initial configuration, 62

Call progress indicators, 188, 283
Call Status, 283
Call Type (GAB), 124
Calling profile (V.35/RS-449/RS-530), 109
Cameras
- 4CIF resolution, 309
- automatic tracking of cam. presets, 172
- backlight compensation, 309
- configuration, 305
- control keys on remote control, 168
- control, 308
- controlling the far-site camera, 169
- direction setting, 309
- high-resolution setting, 309
- preset settings, 170
- primary camera, 309
- primary, 309
- selecting a far-site camera, 168
- selecting a near-site camera, 167
- settings, 170
- snapshots, 309
- Sony EVI-10, 32
- tilt, pan, zoom, 168

Cascading, 19, 201
Chair control
- available actions, 204
- general information, 202
- screen actions, 203

Closed Caption, 240
Color Bar, 283
Conference on Demand 209
Configuration
- clearing, 286
- DHCP, 222
- dialing rules, 126
- Gateway and Gatekeeper, 98
- H.320, 103
- H.323, 93
- initial screens, 59, 77
- Internet Explorer, 225
- Intranet, 85
- IP, 93
- ISDN, 103
- LAN, 85, 298
- monitors, 305
- Netscape, 226
- RS-232, 314
- SNMP, 138
- telephone and audio, 304
- video and cameras, 305

Connecting
- PC and system to the LAN, 220

Country selection, 62
Crypto Resync (V.35/RS-449/RS-530), 110, 313
Custom Speed Dial (PMAC), 249
Custom Video Numbers (PMAC), 250

D

Data collaboration, 302
Data conferencing
- configuration, 216
- enable, 302
- ShowStation IP, 43
- using NetMeeting, 217, 245, 302
- using ShowStation IP, 217

Default Gateway, 88
DHCP
  configuration, 87, 222
  server information, 87
  setting the server in Softupdate, 46
Diagnostic tests, 280
Diagnostics
  Advanced Network Statistics, 281
  Audio Meter, 285
  Audio, 284
  Call Status, 283
  Color Bars, 283
  Far End Loop, 286
  generate tone, 284
  Near End Loop, 285
  Network Statistics, 280
  Reset System, 286
  Web icons, 254
Dial-In Calling, 199, 205
Dialing extension, 127
Dialing prefixes, 72, 108
Dialing rules
  configuration, 126
Dialing Speeds
  BRI, 116
  IP, 95
  V.35/RS-449/RS-530, 70, 107
Dialing suffixes, 72, 108
Direct Connect, 105
Direct Inward Dial (DID), 100
Display Graphics in a Call, 306
Display IP and ISDN Information, 294
Display IP Dialing Extension, 63, 65
DNS servers, 88
Document camera (optional), 42
Downspeeding, 184
downspeeding, compatibility 185
Dual stream compatibility, 43
dual streams, 218
Duplex mode configuration, 90
Dynamic bandwidth, 141

E

E.164 extension, 94
Echo Canceller, 304
Encoder/decoder testing, 285
Erasing system settings, 286
Error messages and codes, 150

F

Far Control of Near Camera, 289
Far Site Name Display Time, 290
Far Site Software Update, 315
Firewall & LAN Connection, 91
Firewall configuration, 79, 91
FX VGA, 307

G

G.722 audio protocol, 114
G.728 audio protocol, 114
GAB server information, 121
Gatekeeper
  initial configuration, 65
  status icons, 82
Gateway
  prefix and suffix configuration, 101
Gateway and Gatekeeper
  configuration, 98
  overview, 96
Gateway Number
  configuration, 100, 101
  type, 100
General Setup, 293
Global Address Book
  how to use, 165
  overview, 120
  Preferred Alias, 123
  setting preferences, 121
  status icons, 165
  Web option, 230

© Polycom, Inc. 2003

Global Management
Allow Remote Monitoring, 132
contact info, 135
Daylight Savings Time, 132
Require Account Number to Dial, 132
servers, 133
setup, 132
Time Difference from GMT, 132
URLs, 134
Global Management System
configuration, 130
overview, 130
Graphics cursor, 178

H

H.262 video protocol, 106
H.320 configuration, 103
H.323
Dialing Speeds, 95
Extension (E.164), 64, 65, 94, 98
initial configuration, 64
name configuration, 94
name initialization, 64
H.331 Broadcast Mode, 105
Hardware information, 315
Help (Topics), 24
High Resolution Cameras, 309

I

IMUX
advanced troubleshooting, 271
Quad BRI, 40
Indicators
call progress, 149, 188, 283
ISDN line, 82
LAN/WAN network problems, 25
Installation
BRI network interface, 38
required information checklist, 33
system, 34
V.35/RS-449/RS-530 network interface, 35
International dialing prefix, 127
Internet Explorer configuration (Web interface), 225
Intranet
advanced troubleshooting, 272
configuration, 85
IP
configuration, 93
IP and ISDN Number Display, 294
ISDN
configuration, 103
lines check indicator, 81
switch protocol (BRI), 76
ISDN Video Network
BRI, 117, 298

K

Keypad Audio Confirmation, 294

L

LAN
advanced troubleshooting, 272
configuration, 85, 298
host name, 86
port configuration, 90
setup screens, 298
speed configuration, 90
Language setup, 293
Lightning bold indicator information, 25
lock screens, 251
logo (PMAC), 249
LSD protocol, 282

M

Management Password (PMAC), 250
management password, 333

Manual Dialer, 187
Maximum Time in Call, 294
MCU
  Dial-In Calling, 206
  Meeting Password usage, 199
  system as, 197
Meeting Password
  as multipoint conference password, 197
  usage, 198, 290, 312, 332
Menu selection, 60
Microphone pods
  general information, 21
  mute button, 173
Mixed Protocol Dialing
  description, 192
  how to place a call, 192
MLP protocol, 282
Monitors
  configuration, 305
  second 41
Multipoint calls
  Address Book meeting entry, 189
  Address Book, 191
  Auto Answer mode, 207
  Auto Answer Multipoint mode, 196
  conference password, 197
  dialing speed table, 183
  firewall UDP/TCP ports configuration, 186
  Manual Dialer and Address Book, 191
  Meeting Password, 198
  Mixed Protocol Dialing speed information, 183
  multiple entries in Address Book, 166
  speed information, 183
  upgrade, 55
  using Manual Dialer, 187
Multipoint Mode, 290
Multipoint viewing modes
  Auto, 195
  Discussion, 195
  Full Screen, 196
  Mode Switching, 197
  Presentation, 196
Multi-Site Meeting, 189
Mute Auto Answer Calls, 289, 304
mute icon and indicator, 174
Mute incoming calls, 304

N

NAT
  configuration for pcPresent, 234
  configuration options, 91
NetMeeting
  access, 246
  overview 245
Netscape configuration (Web interface), 226
Network access dialing rules, 127
Network Address Translation
  configuration, 91
  pcPresent, 234
network and communications troubleshooting, 269
Network interfaces
  BRI, 38
  initial configuration, 68
  installation, 35
  V.35/RS-449/RS-530, 35
Network Setup screens
  BRI, 296
Network Statistics, 281
Network status indicators, 81
NT-1, 32, 40, 269
Number of Monitors (TV), 306

O

OneDial 163
On-screen keyboard
  access, 61
  shift key settings, 163, 188
Optional equipment
  document camera, 42

© Polycom, Inc. 2003

second monitor, 41
ShowStation IP, 43
VCR, 41
Visual Concert FX, 42
Outbound Call Route, 99
Outside line configuration, 77

P

packet loss, 282
Passwords
admin, 312, 332
Administrator Password, 78
GAB server, 121
general information, 312, 332
Meeting Password, 312, 332
multipoint conference password, 197
Software Update Password, 312, 333
passwords
management, 333
protect screens, 251
passwords, Management Password (PMAC) 250
PBX and Private Network Number, 125
PC
configuration, 220, 222
enable DHCP, 224
finding IP address, 247
how to connect to the LAN, 220
requirements, 220
snapshot application (PolycomSnap), 243
pcPresent, 234
People+Content 218
Picture-in-picture, 177
PIP, 150, 289, 306
Placing a call
Address Book, 153
Manual Dialer, 148
multipoint, 187
PMAC 248, 331, 333
Polycom OneDial overview, 97
Polycom Video Error Concealment, 282
PolycomSnap, 243
Power supply
system, 31
power supply
EX, 22
Preferred Alias (GAB), 123
Presentations
advanced troubleshooting, 273
loading, 233
selecting, 236
viewing, 238
Primary Camera, 309
Private Network
access, 127
Dialing Prefix, 128
profiles (PMAC), 252
Public network, 127

Q

QCIF video format, 106
Quality of Service configuration, 140

R

Register system with GAB, 121
Remote control
camera control keys, 168
description of functions, 21
menu selection, 60
mute button, 174
not working, 24
troubleshooting, 275
virtual/Web based, 256
Remote management
sending a message, 257
virtual remote control, 257
Require Account Number to Dial, 132
Reset system, 286
Resynchronization (V.35/RS-449/RS-530), 110

resynchronization, downspeeding 185
Router hops, 137
RS-232
configuration, 314
interface, 314
RS-366 Dialing (V.35/RS-449/RS-530), 69, 107
RS-449--See V.35, 103
RS-530--See V.35, 103

S

Security, 312, 332
Selecting a far-site camera, 168
Selecting a near-site camera, 167
Send a Message (Web interface), 257
Send Address Book, 315
Sending snapshots, 175
Serial number, 314
Shift key on on-screen keyboard, 163, 188
ShowStation IP, 43
Slide display and Annex D, 238
Slide presentation
loading, 232
password, 236
Snapshot Timeout, 306
Snapshots
from Web Interface, 257
select camera, 309
sending, 175
timeout, 175, 306
using PolycomSnap, 243
SNMP configuration, 138
Softupdate
Allow System to be a DHCP Server, 46
software upgrade over IP, 45
Software
information, 314
Software Update Password, 312, 333
update far site, 315
upgrade over IP, 45
upgrade over ISDN, 47
version, 279
Sounds effects
setting volume, 305
SPIDs
auto-detect, 114
entering manually, 75, 114
number troubleshooting, 269
Statistics
advanced (network), 281
network, 280
Streaming
Apple QuickTime, 214
configuration, 136
from Web interface, 261
options 212
Subnet mask, 88
Switch protocols
BRI, 76
System information, 278
System Name
format, 293
initialization, 61

T

Technical Support contact, 27
Telephone
adding an analog number, 78
placing analog call, 158
Telephone & Audio, 304
Timeout of snapshots, 306
tracking call billing 258
Troubleshooting
audio, 26, 264
basic, 24
general problems, 275
IMUX, 271
LAN/Intranet, 272
network and communications, 269
presentations, 273
remote control, 275
video, 27, 267

© Polycom, Inc. 2003

TV Monitor, 307

U

Upgrading software
over IP, 45
over ISDN, 47
to support multipoint, 55
User Setup, 287

V

V.35/RS-449/RS-530
advanced configuration, 103
advanced dialing, 108
audio and video preferences, 106
Broadcast Mode, 105
cable adapter kit, 38
cable information, 37
Calling Profile, 72, 109
configuration 295
Crypto Resync configuration, 110, 313, 333
DCE, 36
Dialing Speeds, 70, 106
Direct Connect, 105
initial configuration, 68
network interface installation, 35
serial interface control signals, 104
Video Network screens, 295
Video Numbers, 73
Validate Account Number, 133
VCR
optional, 41
VCR Audio Out Always On, 310
VCR Record Source, 310
VCR Setup, 310
VGA
input calibration, 311
monitor configuration, 307
output, 308
resolution, 308
VGA monitor, 30
Video
advanced troubleshooting, 267
basic troubleshooting, 27
configuration, 305
diagnostics, 281
error concealment, 282
wide screen, 306
Video call
adding a telephone call to, 159
answering automatically, 156
answering manually, 155, 156
disconnect, 157
manual dial (one number), 148
manual dial (two numbers) 151
multipoint, 182, 183
rejecting automatically, 156
Video Network initial configuration (V.35/RS-449/RS-530), 69
Video Numbers (V.35/RS-449/RS-530), 73
Video Phone, 148
View a Meeting (Web), 240
Virtual remote control, 256
Visual Concert DC, 42
Visual Concert FX, 42, 315
Visual Concert VGA, 307

W

Web browser configuration, 225
Web interface
access, 228
Address Book, 231
Admin Setup, 253
configure NetMeeting, 245
diagnostics, 255
Global Address Book, 231
Internet Explorer configuration, 225
load and select a presentation, 232
main icons, 230
Manual Dialer, 231
Netscape configuration, 226
remote management, 253
running diagnostics, 256

Send a Message, 257
snapshot utility, 257
streaming, 261
system setup, 253
View a Meeting, 240
View a Presentation, 238
virtual remote control, 257
Wide Screen Video, 306
WINS resolution, 87
WINS server, 89

© Polycom, Inc. 2003